The Builder.

No. CCCCLXXXVIII.

SATURDAY, JUNE 12, 1852.

DRAWING is as easy an acquirement as writing, and should form part of the commonest education: a knowledge of it is of the utmost value, and it should be taught in every educational institution throughout the kingdom, not excepting our "National Schools." This we have repeated for years past in various shapes and various places, and when it was not everywhere admitted to be true. It is unnecessary for us to say, therefore, that we cordially welcome the first steps taken by the new governmental "Department of Practical Art," which are founded upon this belief, and have for their object to give effect to the recommendation. Our Schools of Design, which have now been in operation fourteen years, have failed to do all that was expected from them, not simply because of their mismanagement, but because almost necessarily they have been mere drawing schools, and have been used for teaching the means instead of the end. Those who entered, instead of going there to study the principles and practice of decorative art, and to *apply* their knowledge of drawing, went there to learn *how to draw*, and mostly left even before they had acquired that. The mismanagement to which we have alluded as affecting the school at different periods, we never shrank from exposing and combatting, and in consequence our journal enjoyed at one time the distinction of being tabooed at Somerset House!

We have called for elementary schools throughout the country to prepare the eye and hand not merely of those who proposed, when so prepared, to commence the study of design with the view of practising it as a profession, but of the general public, who must be their employers and judges, and elementary schools we are about to have. Our readers are already aware that the Department of Practical Art have offered to aid the establishment of elementary classes, or schools for drawing and modelling, in the advantages of which all classes of the community may share, by appointing a competent master, and guaranteeing the payment to him of a certain income for a fixed period, in case the fees to be derived from the instruction of the scholars should not suffice to pay the master's salary; and lending suitable ornamental drawing copies, models, coloured examples, and books, under certain easy conditions.

The Westminster Mechanics' Institute have the credit of being the first to avail themselves of the privileges offered, and on Friday, the 4th inst. the Right Hon. J. W. Henley, President of the Board of Trade, presided over a meeting there to inaugurate an elementary drawing school, in connection with the Metropolitan School at Somerset House. Sir W. Page Wood, in stating the objects for which the meeting had assembled, congratulated those interested in the subject on the presence of one of the members of the Cabinet, of which they would not have had to boast had it not been for their steady attachment to good order and government. It should be remembered that by the pursuit of such studies as those now pointed to, they were enabled to apply them to the benefit of their fellow creatures, and to the glory of God.

The chairman spoke briefly, but earnestly. He said he believed it would be felt by all, that to young persons who had a taste for drawing, and who wished to succeed in the higher departments of the schools of design, it would be a great advantage that first elementary schools should be raised on sound and good principles, because it would be apparent to all that when persons began to think on wrong principle, there was as much difficulty to unlearn what they had been taught as to acquire a sound knowledge at the outset. It would not be necessary for him to go at any length into the matter immediately before the meeting, as Mr. Cole, the superintendent of the department, was present, and would lay before them some of the principles on which these schools proceeded. He believed that such institutions as these were calculated to do a great deal of good, as they would afford opportunities, for those who sought to elevate their minds, to accomplish that laudable end.

Mr. Henry Cole then read an address, in the course of which he expressed his conviction that if it were necessary to choose between two courses for fostering the production of improved design in manufactures, the education of the public at large or a special class of artizans, the end would be more readily secured by teaching the public aright and convincing it of its ignorance, than by educating the artizan only. If you leave the public ignorant the educated artizan will not be employed; but if you lead the public to feel the want of beauty and propriety,—to be sensible of their presence and impatient at their absence,—to distinguish between symmetry of form and disproportion,—to demand from art at least the aspiration after the perfection of Nature and the recognition of Nature's eternal fitness and simplicity,—he was sure the public would soon demand good designs in manufactures and be willing to pay for them; and that the instincts of traders for their own interests would teach them to find the means of supplying such demands.

"A power of drawing," said the reader, "is too commonly regarded as a luxury and superfluity in education; permissible to girls, who ultimately become women better educated and more refined than men, but unnecessary for boys, who become men intensely skilled in the anatomical points of a horse, but unable to draw straight lines. Drawing is regarded as 'an extra' in school bills, which parents rather avoid than encourage. The same sort of mistake used once to be made with writing.

It should be felt to be a disgrace to every one who affects to be well educated, if he cannot draw straight lines, and make at least simple geometrical forms. Those who cannot do so have no right to expect you to believe that they can even see correctly; yet such is the anomalous state of matters on this point that persons who are unable to use a pencil will affect raptures at paintings, and will criticise art and announce canons of taste with absolute dogmatism. A modern writer observes, "Ask a connoisseur who has scampered over all Europe the shape of the leaf of an elm, and the chances are ninety to one that he cannot tell you; and yet he will be voluble of criticism on every painted landscape from Dresden to Madrid, and pretend to tell you whether they are like nature or not. Ask an enthusiastic chatterer in the Sistine Chapel how many ribs he has, and you get no answer; but it is odds that you do not get out of the door without his informing you that he considers such and such a figure badly drawn.' * * * At the present time we all admit that writing is necessary to be taught to every one, and is serviceable in all relations of life; but it may be easily shown that the power of representing forms by drawing is frequently quite, if not more, needful. And it is equally useful to all classes of the community,—to him who orders a house to be built and pays for it, to him who superintends its building, and to him who actually saws and joins the timber or lays the masonry. All would perform their respective parts with greater power and wisdom, and with greater saving of labour, if they all knew what straight lines were, and possessed the power of making them. But how rare is the possession of this simple power. How many landlords in the country are able to draw a plan of the ground which their houses occupy, or to draw the shape of a cupboard they wish to order from the village carpenter? How many manufacturers are there who direct the labour of thousands of persons in producing ornamental works, and realize thousands of pounds from them, but are unable to draw correctly the form of one of their simplest patterns?"

Mr. Redgrave, R.A. afterwards read a paper, wherein he entered at some length into the general question, as to the advantages derivable from an education in this branch of the arts, by the establishment of schools for the instruction of those who, with small means, are desirous of attaining proficiency.

A resolution, pledging the meeting to co-operate in facilitating the study of the arts as applied to practical purposes, was moved by Mr. Godwin, seconded by Sir De Lacy Evans, M.P. and supported by the Rev. Mr. Cureton, the rector of St. Margaret's. The mover alluded to the hopeful spread of a love of art amongst the community, the value to mechanics, even in a pecuniary point of view, of a knowledge of drawing, and the want, on the part of architects, of artistic artisans.

The Dean of St. Paul's (the Rev. H. Milman), in moving a vote of thanks to the Chairman, dwelt most eloquently on the connection between the *beautiful*, as we recognise it by our senses, and the *good*, which we acknowledge by our reason.

In the evening there was a meeting of mechanics, artisans, and students, fully attended, at which Mr. Burchett, the head master of the school at Somerset House, delivered an able lecture, describing the course of study illustrated by examples on the walls. The classes are to be held at present only in the evening, and the payment is to be at the rate of 1½d. per lesson of two hours; so that it may be hoped that they will be attended by the numerous artisans of the neighbourhood,—"that every carpenter who has to cut straight lines, every smith who has to forge them, every bricklayer who has to lay them, will attend this school at their leisure hours in the evening, to acquire a power of seeing accurately by means of drawing accurately, and will send their children, both boys and girls; for, to see correctly and to draw correctly is quite as useful to one sex as to the other." In the morning, hereafter, we hope that the upper and middle classes in Westminster will attend; that the professional men and the tradesmen will send their children.

On the following day, the 5th inst. Mr. Owen Jones gave his first lecture on the articles in the museum of the department, at Marlborough House, to an audience rather less numerous than we expected to find it. We must content ourselves on the present

occasion with giving the propositions which were discussed by the lecturer.

"1. The Decorative Arts arise from, and should properly be attendant upon, Architecture.

2. Architecture is the material expression of the wants, the faculties, and the sentiments of the age in which it is created.

Style in Architecture is the peculiar form that expression takes under the influence of climate and materials at command.

3. As Architecture, so all works of the Decorative Arts, should possess fitness, proportion, harmony, the result of all which is repose.

4. Construction should be decorated. Decoration should never be purposely constructed.

That which is beautiful is true: that which is true must be beautiful.

5. Beauty of form is produced by lines growing out one from the other in gradual undulations: there are no excrescences: nothing could be removed and leave the design equally good or better.

6. The general forms being first cared for, these should be subdivided and ornamented by general lines: the interstices may then be filled in with ornament, which may again be subdivided and enriched for closer inspection.

7. As in every perfect work of Architecture a true proportion will be found to reign between all the members which compose it, so throughout the Decorative Arts every assemblage of forms should be arranged on certain definite proportions: the whole and each particular member should be a multiple of some simple unit.

Those proportions will be the most beautiful which it will be most difficult for the eye to detect.

Thus the proportion of a double square, or 4 to 8, will be less beautiful than the more subtle ratio of 5 to 8—3 to 7, than 3 to 6—3 to 8, than 3 to 9—3 to 5, than 3 to 4.

8. Harmony of form consists in the proper balancing, and contrast, of the straight, the angular, and the curved.

9. In surface decoration all lines should flow out of a parent stem. Every ornament, however distant, should be traced to its branch and root. *Oriental practice.*

10. All junctions of curved lines with curved or of curved with straight should be tangential to each other. *Natural law. Oriental practice in accordance with it.*

11. Flowers or other natural objects should not be used as ornament, but conventional representations founded upon them sufficiently suggestive to convey the intended image to the mind, without destroying the unity of the object they are employed to decorate. *Universally obeyed in the best periods of art, equally violated when art declines.*

12. The principles discoverable in the works of the past belong to us; not so the results. It is taking the end for the means.

13. No improvement can take place in the art of the present generation until all classes—artists, manufacturers, and the public—are better educated in art, and the existence of general principles is more fully recognised."

The walls were hung with carpets, papers, &c. illustrating the lecturer's "False principles" and "True principles," and he said sufficient to damage pretty considerably the present *stock* of nine-tenths of the manufacturers of the United Kingdom: nor would we have it implied that he said a bit too much. Without pledging ourselves to all the propositions, to the extremity claimed for them by Mr. Owen Jones, we can affirm that we have seldom listened to a more elegant discourse, or one fuller of more useful teaching. We can safely congratulate the department, then, on all their first steps, and we shall be sincerely glad if we have never cause to speak in any other strain.

As intimately connected with the subject, indeed a part of it, we may here speak of the Suburban Artizan School at Camden Town, which is pursuing satisfactorily a course of usefulness. A meeting was held there on the 7th, for the distribution of the prizes. The comparative merits of the prize drawings had been adjudicated by Sir C. L. Eastlake in the Art classes, by Mr. G. G. Scott in the geometrical and perspective class, and by Messrs. Foley and T. Thornycroft in the modelling class. The president of the committee, the Rev. D. Laing, M.A. F.R.S. distributed the prize books to the successful competitors, with a short address to each;* and on that occasion the master, Mr. Cave Thomas, read an address to the students, wherein he pointed out to the successful students that their drawings and models stood well only relatively to this elementary school; that they had yet much to accomplish before they could arrive at the excellence attained in older and more advanced establishments; and he urged them not to allow success to relax their efforts. His remarks on what he considered "the moral and chief good to be derived from the study of drawing" we give in full:—

"If, in the pride of an acquired power, of increased means, or of a greater demand for English manufactures," said the speaker, "we think ourselves greater as men or as a nation, we are mistaken; but if, on the contrary, we contemplate art-education in its humiliating tendency, we can scarcely fail to be morally and socially improved, and every one thus raised will raise his country also in the scale of nations. Many of you have, doubtless, felt a pride in your increased power of delineating objects. 'My drawing is better than his,' may also have been a conclusion silently formed in your own minds; but how stands it in comparison with the original? Have you never felt how limited your powers—how imperfect your attempts to represent the object before you? If not, the study of drawing has as yet failed to improve you as men. It is in this consciousness of the difficulty of rendering the truth and the limitations of your powers that I would lead you to perceive the highest humanising tendency of this branch of education. Let us reflect still further.

If the exact apprehension and representation of the substantive realities of nature and art, which lie so clearly defined before you, be so difficult, how much more so must be those immutable truths of religion, morals, and science which we believe exist independent of the oscillations of opinion, but which are only dimly discerned through the obscuring mists of ignorance.

As these misgivings of our powers and opinions steal over us, our self-knowledge increases. The consciousness of our own imperfections induces a charitable feeling towards those of others. If, with an earnest wish to be truthful, we still fail in arriving at truth, so may others no less earnest. Let us encourage these reflections, therefore, till a calm charity reign over us: men will then whisper one to another—'Let us penetrate the mists which surround us,' that we may be of one mind.

This, then, is the moral with which I would point the study of art,—a moral which, if vitally received, will confer a patent of nobility on every man, as well as add a dignity to the country which neither time nor arms will have power to cancel."

It appears from a statement made by the secretary that there have been in the course of the year (that is, from May, 1851, to May, 1852) 330 men and lads studying in the school. During the current session, the largest number on the books was during March and April, when there were 122 in the men's school, and 28 in the female school.

The geometrical class has been well attended since its commencement, in September last. The course of instruction has been arranged so as to give the students a practical insight into the various styles of architecture. Each style has been successively taken up, beginning with the Classic, and passing through, in their chronological order, the various periods of Mediæval architecture. Wisely, the details and practical construction of each style, the knowledge of which is so important to the workman, have been dwelt upon more than general forms.

From the agencies now at work, we may fairly anticipate a material assistance to the progress of the artistic industry of the country.

* *Men's School.*—Finished drawing of the figure.—1. Wm. Matthews; *M. Scott; 2. A. Inman. Shaded drawings of ornament.—*G. Jessup; 1. E. Mullett; 2. G. H. Mills. Outline drawings of ornament.—1. W. H. Horwood; 2. W. Fewing. President's prize for the best unspecified subject.—Evans, for an elaborate drawing of ornament. Modelling.—Bas rélief from the sound.—1. Gray; 2. W. Taylor. Geometry and perspective.—1. W. Taylor; 2. A. Sheldrick; 3. G. B. Schwartz. *Female School.*—Finished drawing of the figure.—*H. Essex; *F. Harrison; *J. Scott (equal). Finished drawing of ornament.—1. E. Palmer; 2. M. Neal. Geometry and perspective.—E. Sheldrick. President's prize for unspecified subject.—J. Scott, for finished drawing of a head. (Those marked thus (*) having received the first prize last year, were precluded from receiving it again.)

A FEW REMARKS ON ST. PAUL'S AND ITS APPROPRIATE DECORATIONS.*

ST. PAUL'S CATHEDRAL at present, and for the last twenty years or so, has suffered some depreciation; but it must always maintain its dignity as it deserves; and whatever styles or forms of architecture may be in vogue, I feel satisfied that it will maintain its magnificent supremacy above all the buildings of its own age, and I believe of any later one. There are many things in St. Paul's which we cannot altogether admire, and which deserve even blame; but taking it on the main idea, I think we must admit that there is no building to be compared with it, excepting the magnificent Vatican. It has, however, always retained many admirers; and here, at any rate, where we meet to give an impartial consideration to matters of art, it must always have admirers, even among those who study Gothic architecture chiefly. I feel certain there is not one here who denies the magnificence of St. Paul's. It may be a fashion with some who do not take the trouble to investigate the whole subject, to turn away their eyes from its beauties; but all who do properly study architecture, must be satisfied of its magnificence. The pleasure given by the contemplation of such a building is the surest test of its great excellence; and there can be no doubt that the combination of such magnificent science, both theoretical and constructive, in its architect, and his very great love of the beautiful, and (considering the time) his very great freedom from the errors which were then fashionable, are most remarkable; because, if we compare his vagaries with those of Borromini, who was almost his contemporary, we shall find that he is perfect purity itself. He was, indeed, most lovely in his life; during which, as in his death, he was scarcely divided from his building. He lived to the age of 91 years, for fifty of which he was the surveyor-general, not being dismissed from that office till very late in life, in the beginning of George's I.'s reign.

We must all admit that it was a fortunate circumstance which led Wren to the study of architecture. He was Savilian professor at Oxford, had professorships at Gresham College, and was indeed thoroughly grounded in science. From fourteen years of age he had been grappling with difficult physical problems. It is really astonishing what he did at so early an age; and he never flagged: even when his limbs refused to carry him, his mind did not yield. Possibly, abstract science lost a great assistant when Wren took to architecture, as he was called upon to do by the circumstances of the times: but science, in fact, lost nothing. There was one just behind him, and almost immediately following him up,—Sir Isaac Newton, who was well able to carry the cudgels for science. Wren, though a great proficient in astronomy, in chemistry, and even in medicine, was quite justified in leaving these studies for that of architecture; and he had even done so before the great event of that time, the Fire of London, which required him almost to rebuild the city. About the year 1660, Wren seems to have bestowed very great attention on architecture. He built several buildings at Oxford and Cambridge, and appears, in fact, to have spent altogether upwards of sixty years in the practice of architecture,

* Read at the ordinary general meeting of the Royal Institute of British Architects, May 31st, 1852.

and with such energy and activity as probably has never been paralleled. We should look with affection at the memorials that such a man has left,—and what could be a more delightful object than to see completed, according to his ideas, the magnificent building which gives the greatest lustre to his name!

The exterior of St. Paul's is tolerably well completed. There are some points which he intended, and it would be well if they had been completed; but it is not attention to the exterior that is so much wanted,—it is to the interior, which is in a lamentably deficient state, not only from the greater part of the decorations that were intended by him having been left undone, but because there has never been, since the building was concluded, a proper feeling of public spirit to maintain it in the state in which it should be kept. The Dean and Chapter have done a great deal: they have kept the building, in all essentials, in a sound and firm condition: the estates belonging to such a building are not large,—indeed, they are only sufficient just to keep the fabric in ordinary repair. That has been done; and the question now is one of decoration, which does not properly fall to them to manage, nor can they be expected to do so. It is a work, indeed, which might be done by an appeal to public liberality. We know that when the church was building, a tax on coals, to a great amount, was applied to the fabric, but that was stopped when the building was concluded in its main features, but not in its decoration. We now see, in the middle of the choir, an inscription to the memory of Wren, which is known to everybody, — "Lector, si monumentum requiris, circumspice." The modesty of Wren would at any time have made him shrink from such a motto; but it is almost an insult when the building in which it is put up is left in so unsatisfactory a state.

There has never, for the last 140 years, been so hopeful a time for bringing this subject forward as the present. What is brought forward here is for the purpose of inviting consideration as to the best means of proceeding,—firstly, to understand what is the fit and proper decoration of the building, and secondly, to carry in our minds the possibility of urging the subject on, and getting, if possible, the public interest excited in the matter. There is one very fortunate circumstance at the present time, more so, perhaps, than at any other. The authorities generally, of St. Paul's, have hitherto discouraged any attempt at moving in the matter (as many such bodies have); but now they are very desirous—most, if not all of them—that something should be done to put the building in a more satisfactory state as regards decoration. The Dean, especially, appears to have the well-being of the church more at heart than any of his predecessors since the time of Sancroft, who was dean in Wren's time, and afterwards Archbishop of Canterbury.* The present Dean of St. Paul's has kindly encouraged this attempt to bring the present subject before your notice. The main object to consider is what decorations are suitable to the building; and, in determining this, the views of Wren, so far as they are known, should be considered first, and should carry more weight than any others. I will therefore read several extracts which I have made from the Parentalia, and I shall be obliged to appeal to your indulgence if they are longer than they should be in an original paper; but the Parentalia is a work composed mainly by Wren's son, from his own documents, and finally published by his grandson; and therefore, though it is written of Wren, it is almost always Wren's own words that are used. In page 262, Wren writes a letter from France, which shows how much he felt concerned in the interests of art and manufactures:—"I shall bring you almost all France on paper, which I found, by some or other, ready designed to my hand, in which I have spent both labour and some money. Berrini's design of the Louvre I would have given my skin for, but the old reserved Italian gave me but a few minutes' view: it was five little designs on paper, for which he hath received as many thousand pistoles. I had only time to copy it in my fancy and memory. I shall be able, by discourse and a crayon, to give you a tolerable account of it. I have purchased a great deal of taille-douce, that I might give our countrymen examples of ornaments and grotesks, in which the Italians themselves confess the French to excel. I hope I shall give you a very good account of all the best artists of France. My business now is to pry into trades and arts. I put myself into all shapes to humour them: 'tis a comedy to me, and though sometimes expenseful, I am loth yet to leave it." This was in 1665, before the Great Fire of London. As soon as he returned, the subject of repairing Old St. Paul's, which had been long in an unsatisfactory state, was mooted. Inigo Jones had made some repairs to the building, which (excepting the portico) were not very good, it seems, even so far as construction was concerned; and they had come to ruin in Wren's time, that is, in 1665.

Wren proposed, in his repairs of Old St. Paul's, to build a cupola round the old tower, using the latter for fixing the scaffolding, so that he might first finish his dome and then take away the tower. Then he says, with a good deal of knowledge of what people would like, and what would encourage them to proceed:—"As the portico, built by Inigo Jones, being an entire and excellent piece, gave great reputation to the work in the first repairs, and occasioned fair contributions, so to begin with the *dome* may probably prove the best advice, being an absolute piece of itself, and what will most likely be finished in our time will make by far the most splendid appearance—may be of present use for the auditory—will make up all the outward repairs perfect, and become an ornament to his Majesty's most excellent reign, to the Church of England, and to this great city, which it is a pity, in the opinion of our neighbours, should longer continue the most unadorned of her bigness in the world." With regard to his wishing so much for a dome, it is plain that he had that in his mind for a very long time. Ely must have given him the most complete hints for the result which he arrived at in the present St. Paul's. The main feature at Ely is the extraordinary and happy arrangement of the vistas through the aisles, and through the great arches of the cupola, uninterruptedly. That he did not hint at in the model first proposed, but that is one of the great beauties of St. Paul's. Wren's uncle was Bishop of Ely, and it is very likely that Wren was called there very often, and picked up many hints from that cathedral. He seems to have thought that a cupola was a great feature in a Protestant Church, and he always had in view the advantage of it to an auditory; and, unless I am mistaken, some attempt will be made to make his ideas useful in the present day.

After the fire, it became necessary to proceed to some real and thorough repair, if not re-edification of St. Paul's. The Dean and Chapter had endeavoured to patch up the old building, but had met with nothing but mishaps, and it was falling into a state of utter ruin. Wren had advised them from the beginning that it must be pulled down, but they thought they could avoid that alternative. At last, however, Dean Sancroft was desired to write to Wren, and invite him to help them in making a new design. He had offered to make a design just suitable for a temporary purpose, but the Dean very happily thought something more might be done, and, in fact, he helped Wren in every way to forward the complete work as it is.

Most present must have seen the original model by Wren, now preserved in St. Paul's; but to any one who has gone into the model (for it is quite large enough to walk bodily into it, and look about it), it is evident that the general perspectives would have been unrivalled.

This design was to have consisted of "one order of Corinthian only," and there can be no doubt of its magnificence. Its effect among the high houses which now surround the church might not have been so good as that of the present building; but in Wren's time the houses were not so lofty. "Sir Christopher Wren endeavoured to gratify the commissioners and critics with something colossal and beautiful, with a design antique and well studied, conformable to the best style of the Greek and Roman architecture. Some persons of distinction wished to see the design in a model. The surveyor complied with their desires as well as his own, and made a very curious large model in wood, accurately wrought, and carved with all its proper ornaments, consisting of one order, the Corinthian only. This model, after the finishing of the new fabric, was deposited over the Morning Prayer Chapel on the north side; where it is hoped, such public care will be taken that it may be preserved, and if damaged repaired, as an eminent and costly performance, and a monument among the many others of the skill of the greatest geometrician and architect of his time. Thus much is specified upon recollection, that the surveyor in private conversation always seemed to set a higher value on the design than any he had made before or since, as what was laboured with more study and success; and (had he not been overruled by those whom it was his duty to obey), what he would have put in execution with more cheerfulness and satisfaction to himself than the latter."

No doubt, this model has been much neglected, but it is also to be hoped it will not be neglected any longer. Wren set, as is well known, a very high value upon this design, and it is even said that when he gave it up he shed tears. The king, however, gave his warrant for building the church we now see, and from that time Wren very wisely resolved to make no more models for public inspection, nor to expose his drawings in public.

The Cathedral was begun in 1675. A little further on in the Parentalia, we find a kind of apology for the use of coupled columns. The magnificent effect of coupled columns in the Louvre and their equally fine effect in the entrance to St. Paul's, renders such an apology unnecessary; but Wren's words are always worth hearing:—"As the ancients shifted the columns of the portico for the better approach to one door, so at St. Paul's for the same reason, where there are three doors, the two side doors for daily use, the middle for solemnities, the columns are widened to make a more open and commodious access to each. Those who duly examine by measure the best remains of the Greek or Roman structures, whether temples, pillars, arches, or theatres, will soon discern that even among these there is no certain general agreement, for it is manifest the ancient architects took great liberties in their capitals and members of cornices to show their own inventions, even when the design did not oblige them; but when it did oblige them to a rational variation—still keeping a good symmetry—they are surely to be commended, and in like cases to be followed." He proceeded zealously to make the present structure as magnificent as the design permitted. And he makes the following observations upon it:—"The surveyor followed the Templum Pacis, as nearly as our measures would admit, having but three arcades in each of the bodies west and east, as there; but where there are no arcades, and next the dome, he has continued the whole entablature.

"Again, this temple, being an example of a three aisled fabric, is certainly the best and most authentic pattern of a Cathedral Church, which must have three aisles, according to our custom, and be vaulted, though it may not be always necessary to vaults with diagonal cross vaults, as the Templum Pacis and halls of the Roman baths are. The Romans used half-spherical vaultings also in some places: the surveyor chose these as being demonstrably much lighter (viz. two-thirds) than the other. So the vault of St. Paul's consists of twenty-four cupolas cut off half-circular with segments, to join the great arches one way, and which are cut across the other way with elliptical cylinders, to let in the upper lights of the nave. But in the aisles the lesser cupolas are both ways cut in semicircular sections, and altogether make a graceful geometrical form, distinguished by circular wreaths, which is the horizontal section of the cupola, for the hemisphere may be cut all manner of ways into circular sections; and the arches and wreaths being of stone carved, the spandrels between are of sound brick invested with stucco of cockle-shell-lime, which becomes as hard as Portland stone, and which having large planes between the stone ribs, are capable of further ornaments of painting if required. Besides these twenty-four cupolas, there

*He was one of the nonconforming bishops, and no longer archbishop after the Revolution.

is a half cupola at the east, and a great cupola of 112 feet diameter in the middle of the crossing of the great aisles. In this the surveyor has imitated the Pantheon or Rotonda in Rome. . . . The Pantheon is no higher within than its diameter: St. Peter's is two diameters. This shows too high, the other too low. The surveyor at St. Paul's took a mean proportion, *i.e.* 1·414 : 1, which shows its concave every way, and is very lightsome by the windows of the upper order, which strike down the light through the great colonnade that encircles the dome without, and serves for the butment of the dome, which is brick, of two bricks thick, but as it rises every 5 feet, has a course of very excellent brick of 18 inches long, banded through the whole thickness. The concave was turned upon a centre, which was judged necessary to keep the work even and true, though a cupola might be built without a centre; but this is observable, that the centre was laid without any standards from below to support it, and as it was both centering and scaffolding it remained for the use of the painter. Every story of this scaffolding being circular, and the ends of all the ledgers meeting as so many rings, and truly wrought, it supported itself. This machine was an original of the kind, and will be a useful project for the like work hereafter. . . . . It was necessary to give a greater height than the cupola would gracefully allow within, though it is considerably above the roof of the church. Yet the old church having had before a very lofty spire of timber and lead, the world expected that the new should not in this respect fall short of the old (though that was but a *spit* and this a *mountain*); he was therefore obliged to comply with the humour of the age, and to raise another structure over the first cupola, and this was a cone of brick—so built as to support a stone lantern of an elegant figure, and ending in ornaments of copper gilt; the cone being covered and hid out of sight with another cupola of oak timber and lead, and between this and the cone are easy stairs that ascend to the lantern.

"He took no care to make little luthern windows in the leaden cupola, as are done out of St. Peter's, because he had otherwise provided for light enough for the stairs from the lantern above and round the pedestal of the same, which are not seen below. So he only ribbed the outward cupola, which he thought less Gothic than to stick it full of such little lights in three stories one above the other (as is executed in the cupola of St. Peter's at Rome), which could not without difficulty be mended, and, if neglected, would damage the timbers. The inside of the whole cupola is painted and richly decorated by an eminent English artist, Sir James Thornhill, containing, in eight compartments, the Histories of St. Paul. In the crown of the vault, as in the Pantheon, is a circular opening, by which not only the lantern transmits light, but the inside ornaments of the painted and gilded cone display a new and agreeable scene."* We have here engravings of these pictures,—St. Paul at Athens, at Ephesus, before Felix, and at Malta; the conversion of St. Paul; St. Paul and Elymas the soothsayer, and St. Paul at Lystra and Phillippi; all of which are admirably executed.

"The first stone was laid in the year 1675. The walls of the choir and side aisles were finished 1685. The highest stone on the top lantern was laid in 1710, by the hands of Christopher Wren, the son of the surveyor, by him deputed to it, Sir Christopher being in his 78th year."—So much for the extracts from the Parentalia.

It is well known that Wren was averse to a balustrade above the main cornice, and in Elmes' "Life of Wren" there is an amusing letter from him, deprecating the introduction: it is dated October, 1717, just before his dismissal, which occurred in 1718. In certain points of view, as from some of the narrow streets adjoining, the pierced work of the balustrade has a happy effect; but Wren always looked at St. Paul's as a work that might be seen from suitable points of view, and the cornice with the magnificent line of trusses which he provided for its support required no balustrade.

The church was carried on with every attempt to make it as rich and perfect as the funds would possibly allow, in the time of the Stuarts. At the accession of William III. both he and Queen Mary were well disposed to carry on the building; but they seemed to have wished to get over it quickly: they did not, like the Stuarts, treat it as a work of love, but as a piece of business. Still they were great friends to Wren; and the queen, herself a Stuart, was his great patron after the deposition of James II. After her death, in 1695, his enemies began to get the better of him; and in 1696, in an Act of the 9th William III. "for completing and adorning the Cathedral Church of St. Paul, London," a clause was inserted to suspend a moiety of the surveyor's salary till the church should be finished, "thereby the better to encourage him to finish it." When we consider that his salary was only 200*l.* a year, and that he received no other advantage besides that, we see that he was rather in bad case towards the end of William's reign. The king was not inimical to Wren, and seems to have been pleased with what he did at Hampton Court, but he was immersed in politics to an extent beyond that which other kings have been before or since. In Queen Anne's reign the church was still carried on, but more or less with the same wish to get it over, and to that fact we may ascribe what is said in the Parentalia as to the mosaics. These Wren certainly intended, and they were no doubt practicable. In Queen Anne's reign, however, Sir James Thornhill obtained the commission to decorate the church, and there can be little doubt, from these prints (and from the model), that Wren intended a coffered ceiling, and generally, a thoroughly architectural design. There is still a good deal of architectural device in the present cupola, and we cannot much blame that. So that, for the first years of Sir James Thornhill's commission (till about the year 1712), they must have worked pretty well together; but afterwards (if any faith be placed in the print by Wales and Gwyn) the paintings were sprawled about over the architecture, much as they are in the late Borrominesque churches. Therefore, it must be supposed that as Wren's hold relaxed, Thornhill's became firmer, and the painter got the start of the architect; so that it is in some degree fortunate that these lower parts of Thornhill's design were not executed. They would have interfered with the architectural character of the building; but if we can eliminate from them the ideas of Wren, we may do much to form a consistent scheme of decoration. In a print, engraved by Wren's permission and authority, figures are shown in the spandrels of the dome, somewhat as in the pendentives of St. Peter's, but much smaller: in the small cupolas of the nave there are coffers, with figures in the spandrels, in due subordination to the architecture.

Worse days came for Wren:—

"Old times were changed, old manners gone:
A stranger filled the Stuart's throne:
The bigots of the iron time
Had held his harmless art a crime."

And by the accession of George I. all the old intention of carrying on the building as it should be was entirely lost sight of.

Here is a passage, in which Wren complains of the painting being taken out of his hands. He had applied for the moiety of his salary, but was told the building was not done. He replies:—"Nothing can be said to be unperfected but the iron fence round the church, and painting the cupola, the directing of which has been taken out of my hands; and therefore I hope I am neither answerable for them, nor that the said suspending clause can, or ought to, affect me any further on that account." This was undoubtedly very different treatment to that which such a man deserved. Moreover, as we have said, the surveyor's salary was only 200*l.* per annum!

The puritanic zeal of the time seems to have entirely put a stop to the decoration of the church; and the same feeling was strongly developed in the case of the window of St. Margaret's Church, which was objected to as superstitious, although it is simply a very beautiful picture of the Crucifixion. That discussion led to the production of an exceedingly able publication, by Dr. Wilson, which was published in 1761. I will read a few extracts from that work, which I think furnish an excellent apology for the introduction of historical figures into St. Paul's, or any other church; of course, always observing that nothing should be introduced which could in any way offend persons who might conscientiously take offence. Dr. Wilson says:—

"It is impossible for any one who has made the least observation on mankind not to have discovered the vast influence which grandeur and magnificence have on our minds. The splendour of the palace begets the most respectful ideas of the prince who inhabits it; and the courts of justice would lose a great share of their dignity were the judges divested of their robes.

It may perhaps be said that objects of this nature affect only the vulgar, whilst men of sense look farther, and bestow their reverence on those real and internal qualities which alone deserve it. If this be true, it is, I believe, certain that all mankind are the vulgar in this respect, since there does not, probably, a human creature exist who is not in some degree influenced by appearances. . . And contempt is the concomitant of meanness—and reverence of splendour.

I have sometimes thought that men may have considered this as a kind of mechanical method of exciting devotion, and have, perhaps, objected to it as if it derogated from the dignity of true religion. It would, in my opinion, be equally reasonable to object to the use of a lever, because the application of it was a reproach to our natural strength.

It was undoubtedly with the religious hope of doing something acceptable to God that men were led to adorn his temples, and not from any reflections, *à priori*, that ornaments were capable of raising devotion. But since experience convinces us that this is true, we have now an additional motive for embellishing the structure in which we pay our adoration to the God of all."

With regard to the subjects that may be proposed for decorations of churches, he cites the following highly important passage from Archbishop Wake (then reputed of the Low Church party), in his "Exposition of the Doctrine of the Church of England:"—"When the pictures of God the Father and of the Holy Ghost,—so directly contrary to the Second Commandment, and to St. Paul's doctrine,—shall be taken away, and those of our Saviour and the blessed saints be by all necessary cautions rendered truly the books, and not the snares, of the ignorant, then will we respect the images of our Saviour and of the blessed Virgin. And as some of us now bow down towards the altar, and all of us are enjoined to do so at the name of our Lord Jesus, so will we not fail to testify all due respect to his representation."

Further on the author says:—"As ornament and instruction are all we contend for, I should prefer large historical paintings to single figures; and this the more readily, because adoration has at no time nor in any place been paid to them. Indeed, it is scarcely possible to conceive, when a number of objects are placed before the eye in one picture, that a particular one can be selected for this purpose; and yet it must be done, unless we can suppose men be ridiculous enough to adore the thieves that were crucified with our Saviour and the guards who attended." He then considers whether the rules of the Church of England were contrary to painting, and shows that they are not so.

Now, we find in St. Paul's some magnificent spaces adapted for paintings. The various cupolas of the nave and aisles, the spandrels of the roof, and part of the drum of the dome, are all open to the painter; and if so decorated, of course under due restrictions, and in accordance with the Protestant authorities of those times, I think the church of St. Paul's might be made worthy of its position, as the head church of this country. But before that is

* "The judgment of the surveyor was originally, instead of painting in the manner it is now performed, to have beautified the inside of the cupola with the more durable ornament of mosaic work, as is nobly executed in the cupola of St. Peter's at Rome. For this purpose he had projected to have procured from Italy four of the most eminent artists in that profession; but as this art was a great novelty in England, and not generally apprehended, did not receive the encouragement it deserved. It was imagined, also, the expense would prove too great, and the time very long in the execution; but though these, and all objections, were fully answered, yet this excellent design was no longer pursued. The painting and gilding of the architecture of the east end of the church, over the communion table, was intended only to serve the present occasion, till such time as material could have been procured for a magnificent design of an altar, consisting of four pillars wreathed of the richest Greek marbles, supporting a canopy, half-spherical, with proper decorations of architecture and sculpture, for which the respective drawings and a model were prepared. Information and particular descriptions of certain blocks of marble were once sent to the Right Rev. Dr. Compton, Bishop of London, from a Levantine merchant in Holland, and communicated to the surveyor; but unluckily the colours and scantlings did not answer his purpose. So it rested in expectance of a fitter opportunity, else probably this curious and stately design had been finished at the same time with the main fabric."

NEW VESTRY HALL, KENSINGTON.—MR. BROADBRIDGE, ARCHITECT.

done, there is one very important consideration. The paintings by Thornhill, in the cupola, are in a very deplorable state. They are painted in oil, and are now about 130 or 140 years old; and, owing in all probability to the settlement of damp in the church, a great part of them has perished. Means have been taken which will render the settlement of damp much less likely in future, so that if there were any chance of restoring these paintings, they would be more permanent than they have been. Such opportunities and chances have been brought before us, especially that by Mr. Parris, whose most able and courageous plan for restoring these works has before been mentioned.

I am happy to say that one of the points which the Dean of St. Paul's has very much at heart is the restoration of these paintings; and I think, with his energy and determination on the subject, it will be done; more especially as I believe I am justified in announcing that Mr. Parris is now as willing as he was thirty years ago to undertake the restoration of the cupola. The Dean and Chapter would no doubt think that if, by the means within their disposal, they should restore the cupola, all the other restorations could be readily followed out by a public subscription, provided proper interest were taken in the work; and I cannot but think, with the energy now displayed on the subject, it only wants a commencement.

FRANCIS C. PENROSE.

NEW VESTRY HALL, KENSINGTON.

THE parishioners of Kensington have recently built a new vestry-hall, the inconvenience of the room adjoining the parish church having been long felt. Above we give a view of it. Mr. Broadbridge was the architect, and Mr. Thomas Corby the builder. It is constructed of red bricks, with stone dressings, and stands in the High-street, on the west side of the National Schools.

BELFAST: ITS BUILDINGS AND SANITARY ARRANGEMENTS.

THE bricks manufactured in Belfast and the neighbourhood are of a light red colour, soft and friable: they are always slop-moulded, and no breeze or other combustible matter is incorporated with the clay, so that the bricks are merely baked, and not ignited. They are rather thicker than the ordinary English brick,—three courses, with half-inch beds, rising twelve inches. They are fired in clamps with coal as fuel, and, probably from the manner of stacking them when burned, the ends are of a paler colour than the sides. This gives a chequered appearance to the fronts of houses, which, when not plastered over, are built in Flemish bond. For ordinary walling they lay 3 feet, or five courses of stretchers and one course of headers, though it is possible that many of the headers are only bats and half bricks. The price is about 20s. per 1,000.

Very little scaffolding is used in building here, the men working from within, and the joists of the floors supplying the place of scaffolds. Chimney stacks, of great height, are always built from within.

In consequence of the County Down Railway having run a branch line in to the Freestone quarries at Newtownards, *Scrab stone* (as it is called, from the mountain in which it is quarried) is coming very much into use. It is a sand stone, soft and laminated, varying in colour from a dull reddish brown through every tint of drab and gray: it is not able to withstand the atmospheric influence, especially in so damp a climate, and is very frequently painted over—a barbarity for which they deserve a touch of criticism. The price is about 1s. per foot. Fence walls, and other rubble work, are constructed of basalt, which abounds in the surrounding hills. The union-house and fever hospital are, however, built of basalt, with brick and freestone dressings, in a kind of pseudo-Gothic style, which seems universally allotted to these edifices throughout Ireland.

Excellent limestone is got from Cave-hill, where it crops out below the basaltic strata: it is a kind of indurated chalk, very hard, and with a conchoidal fracture. It would probably do very well for lithographic writing, were any one to take the trouble to select clean blocks and saw them into slabs. A railway carries it down from the hill to the shore, whence it is largely exported. The price of lime in Belfast is 1s. per bushel. Pit sand is dug out in

Malone, just without the borough, and Lough Neagh and sea sand are also used.

The principal streets of Belfast are well paved with broad flagged "trottoirs." The roadway is generally macadamised, but in some few cases paved with wood. The road pavement is constructed of short cylindrical blocks, cut from pine spars; and as these leave triangular interstices, which are filled with gravel, the pavement is seldom slippery, and seems to stand the moderate traffic over it very well. In some of the smaller streets the footways are laid with black (basalt) and white (limestone) pebbles from the shore of the Lough. These are usually disposed in regular geometric patterns, and form a rude tesselated pavement. The street-posts throughout the town have the cardinal points cast on the top, with the "fleur-de-lys" always pointing north, so that a stranger can at any time tell, at least, his bearing when abroad. This plan might furnish a hint to the Metropolitan Paving Commissioners, and would be of real use in London, where even natives lose themselves occasionally.

In various parts of the town there are cast-iron water-troughs erected for horses and cattle: these are put up and maintained at the expense of the British Society for the Prevention of Cruelty to Animals, and supplied with water gratuitously by the water commissioners. They are served by a ball-cock, so arranged as to allow the water always to stand up to the brim. They are covered and locked at night. There are no watering-places for dogs, but the police regulations of the borough compel owners of dogs to attach to their collars a block of wood of a certain weight, during the summer months. This may have some occult influence on the animal's disposition, but would rather, one would suppose, increase than diminish any tendency to insanity.

Belfast is supplied with abundance of tolerably soft water from the Cave-hill Waterworks, which are situated at a sufficient height on the side of the mountain to serve the tops of the highest houses. It is optional with owners of houses whether they will use the water or not, but the tenant must pay the rate if the main pipe runs within a reasonable distance of his door.

Gas is manufactured by an English company, and there is a very great consumption, not only in the mills, but in private residences—the latter almost universally being fitted in all the rooms with burners. I am told that a considerable quantity of common air is mixed with the gas, which both increases the brilliancy of the light by insuring more perfect combustion, and renders the manufacture more profitable. The price is 5s. per 1,000 feet; coals varying from 10s. to 13s. 6d. per ton. A discount is allowed to large consumers.

The town lying on a flat, very little above high water mark, and the rise of the tide being but about 10 feet, the drainage is not first-rate. However, some large sewers have been lately constructed, and public feeling seems awakened to the expediency of good draining in a sanitary view. A great part of the sewerage is poured into the Blackstaff river, which runs through the southern quarter of the town, rendering a pure mountain stream the most horrid mass of filth and putrescence imaginable. It has been proposed to culvert this river, and power to raise money was obtained last session; but the Blackstaff is like all mountain streams, subject to floods, and no culvert could carry off the great body of water brought down after heavy rain, which occasionally (as in last October) lays the whole town under water. A better plan would be, I think, to construct a sewer for the sewerage, and leave the river for river-water and rain. The street railings are always made of wrought iron. They are rendered ornamental by hollow iron castings being threaded on each rail, forming a base, centre, and cap, under the horizontal bar, and having generally a floriated termination to each rail.

Intramural burial has never been known in Belfast. All the cemeteries are beyond the borough boundary. These are, however, much overcrowded, especially the Roman Catholic burying-ground at Friar's Bush, near Queen's College, and this is rapidly becoming intramural by the increase of buildings in this quarter. There are no exact means of ascertaining the rate of mortality in Ireland, the Act of Registration, &c. not extending to this country; but to judge from the number of funerals constantly taking place, it must be very high. This is denied, however, by some, who argue, that from the health of the troops quartered in the town, that of the whole population should be judged; but the barracks are built on high ground, open, and airy; and military discipline enforces a degree of *cleanliness* which is by no means practised by the people generally.

On my first arrival here, two years ago, I supposed, from the absence of cowls, pufflers, windguards, &c. that the Belfast architects had solved the problem of constructing a chimney in which the smoke would ascend. Experience, however, teaches me that chimneys do smoke in Belfast, and that the absence of remedial contrivances arises from the patient and enduring character of the natives.

Houses here are occupied as soon as finished, often even before the plasterers are out: the walls (which are never papered till after some lapse of time) stream with water for months. The wood-work is merely primed; and when the walls are dry, the painting and papering are completed. Every house is fitted with a shower-bath adjoining the water-closet, and the same cistern, and usually the same closet, serves for both: the better class houses have a regular bath-room.

Sea-bathing is found at Holywood, five miles from Belfast, and at various other places in the neighbourhood. Machines are unknown, and the sexes bathe promiscuously in a way which at first astonishes an Englishman. But after a time the feelings become "more Irish, and less nice." And nowhere have I seen any approach to indecorum or impropriety.

"HONI SOIT QUI MAL Y PENSE."

A BIT OF CRITICISM.

LORD HARRINGTON'S MANSION.

IT surely happened not a little curiously that the very same number of your journal which contains what I said relative to the important qualities of breadth and repose, under the heading of "Window Architraves," also exhibits an elevation that serves to make manifest the value of these qualities, by showing the unfortunate consequences of the total disregard of them. As Mr. Rippingille says (in his pamphlet, "Obsoletism in Art: a Reply to the author of Modern Painters, in his Defence of Pre-Raphaelitism"), "There are two ways of learning; the one, by going wrong, and the other by going right." Of the former highly undesirable mode of instruction, a notable instance is furnished by the design alluded to: let us then hope that it will prove an efficacious one also. Were I to express my opinion of it without reserve, I should be compelled to make use of language and epithets which, however justly merited, would be deemed as illiberal as they would be disagreeable. All, then, that I will say is, that it makes us sigh for even Strawberry-hill Gothic, and that the "Clarendon" looks superlatively aristocratic in comparison with it. Instead of "repose" we have actual torture—the very thumbscrew of design. You yourself admit that the design of the windows is more eccentric than beautiful. Eccentric, forsooth! I do not object to the *ex*, but the other letters of the word should have been *ecrable*.

With regard to the plan of the mansion in question, I think it exceedingly poor at the best, and in many respects not a little defective; but I reserve my remarks upon it for the present, and until I am encouraged to offer them by the insertion of those which I now send.

Q. E. D.

THE PRESTON PEEL STATUE was inaugurated on Whit Monday. If we may judge correctly by an engraving of it given in the *Preston Guardian* of 5th inst. the pedestal is much too high.

NOTES IN THE PROVINCES.

Halsted.—The church of St. Andrew, Halsted having been restored, was re-opened on Tuesday in last week. The edifice has the appearance of a new building within and without. The external walls, which were of a calcareous cement, are now of flint, with Caen stone dressings. All the stonework has been executed by Mr. White, of Pimlico. The body of the church and the tower were restored under Mr. Clarke, the diocesan architect. The old tower has been taken down and a new one, 110 feet in height, erected, 25 feet into the yard, so as to secure 50 feet additional, with sittings under the belfry. The walls which cut off the side aisles from the nave have been removed and the space thrown into the church. The roof of the nave is of oak and open to the rafters. The chancel has been restored under the superintendence of Mr. H. W. Hayward, of Colchester, who has adopted the decorated style. The east wall, and part of the north, next the church, have been taken down and re-built, and a new stone doorway, with carved oak door, has been erected for the vestry. The low plastered roof is down, and the whole raised to a corresponding height with the rest of the building, with oaken roof. The floor is laid with encaustic tiles, the gift of Mr. Minton. The carvings have been carried out by Mr. Rayner, of Halsted, builder, the contractor for the whole of the work. The great east window is of stained glass, the subjects being—the taking down from the Cross, the Annunciation, and Ascension, executed by Clutterbuck, and is a memorial to the late Dr. Adams. The nave and aisles are fitted up with low open oak benches, and will altogether accommodate 970 persons. The sum expended upon the work amounts to between 5,000*l.* and 6,000*l.* and a debt of 900*l.* still remains. More than 30,000*l.* raised by voluntary contributions, have been expended in this parish for churches and schools in the last ten years, according to the *Chelmsford Chronicle*.

Swindon.—The new market-house committee have accepted the tender of Mr. George Major for building the market-house at the sum of 1,185*l.* The works are to be commenced forthwith, and to be completed by December next. The structure is of the Doric order, having a frontage of 75 feet, to be built with Bath stone. Above the market there will be an assembly room, 47 feet by 27 feet, for magisterial and other public purposes, with anterooms, library, reading-room, &c. intended for the use of the "Swindon Library and Literary Institute." The basement also contains store-rooms for corn, cheese, &c. Mr. S. Sage, of Swindon, is the architect, whose estimate for the building was 1,170*l.* The following is a list of the tenders sent in:—Mr. Frampton, 1,240*l.*; Mr. Barrett, 1,212*l.*; Mr. Phillips, 1,195*l.*; Mr. George Major, 1,185*l.* (accepted).

Rugby.—The foundation stone of Holy Trinity Church, Rugby, was laid on Thursday in last week.

Worcester.—A curious affair has taken place here in regard to the proposed enlargement and restoration of St. Nicholas's church. Notes of hand, &c. to the amount of 2,500*l.* were presented to the rector about two years and a half since, by Mr. W. Laslett, member of Parliament for Worcester, to enable him to carry out the proposed enlargement, and which he presented along with a note, in which he says:—"I hereby assign and make over the notes of hand and moneys to you absolutely, for the purpose aforesaid, or for any charitable foundation." An architect, Mr. Day, was accordingly consulted, and tenders called for, when some difficulty was found in making the amount of the fund cover the cost of the proposed enlargement, and thus various delays arose till the autumn of last year, when Mr. Laslett obtained from the rector, Mr. Havergal, a loan of one of the notes of hand for 1,000*l.* "as the party to the note wished to pay it off." In March last, Mr. Laslett, after a long illness, wrote to the rector, stating that "the parishioners having *rejected* the gift," he "had determined to erect twelve almshouses," and demanded back the documents, &c. in Mr. Havergal's hands. Lawyers have been since

consulted and employed in the cause, and there was a vestry meeting about it on Thursday week, at which it was resolved to return the fund if Mr. Laslett would pay all expenses. Mr. Laslett had previously offered to pay the architect.

Gloucester.—Operations have been commenced for the construction of a new graving dock at this port. Mr. Guest is the contractor. The probable cost of the work under his contract will be about 5,000*l.*

Wotton-under-Edge.—The new Tabernacle in this town was opened on the 26th ult. It is in the early English style, and will seat 800 persons. The internal dimensions are—length, 71 feet; width, 41 feet; height to ridge of roof, 52 feet. The roof is of pine, open timber stained, also plastered between the rafters, and of one span. There are galleries at the sides and end. The pews are open. Direct access from the chapel to the tabernacle-house is provided. The front elevation comprises deeply recessed doorway, mullioned triplet window, and two campaniles to the height of 70 feet, set back from the front to admit of egress door. The side elevation comprises four double lancet windows, with canopied and sloped buttresses between, also at angles, above which is a corbel plate. The roof is covered with slate, finished with ornamental crest. The stone is from Cromhall, near Wotton, and given by Earl Ducie; the dressings from Bath. The woodwork is stained and varnished. The old school was intended to be rebuilt, but this at present stands over for want of funds. The entire cost, including excavating, building, warming by hot water, lighting, ventilating, entrance to chapel-house, kitchen, cellars, architect's and clerk of works' expenses, is 2,200*l.* The architect was Mr. Henry Masters, who was the architect of the Whitfield Tabernacle, Kingswood-hill, opened in June last.

Devonport.—The foundation-stone of a new church was laid on Wednesday week in the district of St. Stephen's. The architect is Mr. J. Piers St. Aubyn, and Messrs. W. and T. May are the builders; Mr. Galbraith, clerk of works. St. Stephen's is designed in the Middle Pointed style, and intended to be a cross church. When completed it will have a nave and two aisles, but at present it is proposed to build only the nave and one aisle, the site of a house requisite being on lease. There is to be a tower and spire 150 feet in height, rising from the chancel. The length of the nave is 67½ feet, and the total width of the church including both aisles, 47 feet 9 in. The building, if completed according to the design, will accommodate 738 persons.

Lozells.—The chief stone of the new church of St. Silas, according to a Birmingham paper, was laid on Wednesday week by Lord Calthorpe. The building will contain 1,000 sittings, 340 free; and, including 1,000*l.* endowment, and a repair fund of 250*l.* is estimated to cost 3,600*l.*; the site having been given by the Rev. W. Burbury, M.A. Mr. F. W. Fiddian is the architect. The style is Early English. The erection will be cruciform, consisting of nave, chancel, and transepts, with bell-turret at north-west end of nave. The roof is to be of high pitch, and the rafters exposed. The windows are lancets, grouped in couplets on the sides of the nave, and in triplets at each gable end. The material of the walls is principally brick; stone to be sparingly applied to a few details. The seats are to be all low backed, and open. The chancel and transept communicate with the nave by double chamfered arches, the inner order of which rests on moulded corbels. The contract has been taken by Mr. Wilson, of Handsworth, for 2,250*l.*

Bilston.—The district church of St. Luke, at Bilston, Staffordshire, was consecrated on Wednesday week by the Bishop of Lichfield. It consists of nave, with clerestory, and north and south aisles (75 ft. by 50 ft.), chancel and chancel aisle, porch, tower at east end of south aisle, and low brooch spire; entire height, 97 ft. The lower part of the tower is occupied as the vestry, and the organ is placed in the chancel aisle. The church is built in the first Pointed style, with Alvechurch stone, and lined with bricks, and the roof covered with Staffordshire ornamental blue tiles. The accommodation is for 800 persons. The timbers of the roof and the seats are of deal, stained and varnished. The floor of aisles is laid with the Staffordshire blue and red tile, and the chancel with Minton tiles; those within the altar rail encaustic. The east window, which is a triplet, is filled in with stained glass by Wailes, of Newcastle, the centre light having the figure of St. Luke, and angels in the lights on either side. A two-light lancet window in the north aisle is also filled in with stained glass, representing Saints Timothy and Paul, the gift of the working-men of Bilston, and of the teachers of the Sunday-school. The cost, exclusive of fence walls, will be about 2,800*l.* Architects, Messrs. Johnson and Son, Lichfield. Builder, Mr. Jno. Robinson, Redditch. A vicarage-house and schools on the adjoining land have also just been completed by the same architects and builder.

Nottingham.—The Duke of Newcastle intends, it is said, to appropriate the whole of Nottingham Park and adjoining grounds to building purposes; and the local surveyor is about to expend a considerable sum in the formation of main road and culverts preparatory to the intended appropriation.

Leicester.—The chief stone of a new temperance hall was laid here on Wednesday week. The intended building is from a design by Mr. J. Medland, of Gloucester, architect, selected from twenty-nine competing designs. The external dimensions will be 105 feet by 58 feet; height of walls 57 feet, and the pediment will rise to an elevation of 73 feet. It will consist of two stories. The ground floor will be entered by a corridor in the centre, leading to a reading-room, 35 feet by 20 feet; a library, 20 feet by 13 feet; a club-room or public sale-room, 27 feet by 20 feet; a committee-room, 20 feet by 14 feet; and a lecture-hall, 45 feet by 33 feet, arranged as an amphitheatre. This hall will accommodate from 300 to 400 persons, and the elevation at the highest part will be 20 feet. The height of the reading-room, club-room, &c. will be 14 feet. The large hall will be galleried in front and on two sides. The orchestra will accommodate 200 performers, with a platform for public meetings, lectures, &c. in front, and an organ recess at the back. The hall will seat upwards of 1,600 persons, and accommodate from 2,500 to 3,000 standing. The ceiling will be carved and decorated with polychromy. The whole building will be warmed and ventilated. The cost of the edifice, including site, fittings, decorations, iron palisade, and other incidentals, is expected to be upwards of 7,500*l.*

Morecambe Bay.—The reclaiming of this bay is at length, says a contemporary, about to be carried into effect. The right has been purchased from the Admiralty by Messrs. Brogden and Co. and the undertaking will be carried out conjointly with the Ulverstone and Lancaster Railway. The rivers Crake and Leven will be confined to a fixed channel, and the bay will no doubt be left in a great measure to silt up. The vast tract, which extends from Tridley Point (near to the Ulverstone Canal Foot) to Greenodd, comprises an area of about 145,000 acres.

Liverpool.—The ceremony of laying the foundation-stone of the Holy Cross National Schools took place on Monday week. The site chosen is in Fontenoy-street, in the midst of a numerous Roman Catholic population. The building will be 72 feet long, and 40 feet wide, within the walls, and is intended to contain school-rooms for boys and girls, and a guild-room.—*Liverpool Times.*

Kersal Moor.—The new church of St. Paul, recently erected on Kersal Moor (the scene of the old Manchester races), was consecrated on Saturday week. The amount raised at present for the erection and endowment of the church and the building of the parsonage-house, is about 8,759*l.* The church is calculated to accommodate 1,200 persons, one-third free. The style is Perpendicular. The tower is a composition from Magdalene, Oxford, and Carisbrook, Isle of Wight, with the addition of a lofty spire. The material is stone for the whole of the walls and spire, fine stone for the dressings. The inside is lined with brickwork. The extreme length is 135 feet, the width (exclusive of the transepts) 67 feet. The tower and spire rise to an altitude of 150 feet. The church was erected by Mr. James Holmes, builder, Lancaster. The architect is Mr. Andrew Trimen, of London. The cost is about 5,000*l.*

Burnley.—The new Wesleyan schools at Burnley have been opened. They stand in the centre of the town, and form an extensive pile of buildings, consisting of a porch, entrance-hall, two school-rooms, four class-rooms, and two residences. The large room is 28 yards long, 16 yards wide, and 9 yards high; and the other is 24 yards long, 10 yards wide, and 9 yards high. The buildings are warmed by means of a hot-air apparatus, erected by Mr. Thomas Atkinson, of Burnley, and ventilated by a perforated hollow wooden beam which runs through the buildings immediately under the ridge of the slate into flues at the ends of the rooms. The school-rooms will accommodate upwards of 800 children. The walls are wholly built of stone, with ornamental portions at the corners, porch, &c. It is principally of the Elizabethan style of architecture, from designs by Mr. Simpson, of Leeds, architect. The cost is about 3,600*l.* of which 2,000*l.* were raised by subscriptions, and 807*l.* from the Committee of Council on Education. The contractors were—Mr. Robert Smith, mason; Mr. Thomas Hird, joiner and builder; Mr. Clarke, painter and plasterer; and Mr. Thomas Atkinson, whitesmith.

Leeds.—The town council have resolved, on the report of the new town-hall committee, to allow a sum not to exceed 35,000*l.* to be expended in the erection of the proposed new town-hall. Plans are to be advertised for.

Glasgow.—The cathedral of this city is about to be improved by the removal of a mound in front of the infirmary.

Kirriemuir.—A Presbyterian church is about to be rebuilt in this town. Other new buildings are going on in this place.

Comrie.—This town has been lighted by White's hydro-carbon gas.

WINDOW ARCHITRAVES.

LEST the silence of Mr. Bailey, who is *en route* for Constantinople, and therefore unable to reply to the remarks of your correspondent, "Q. E. D." upon his paper, should be construed into an admission of the weakness of his arguments, I would endeavour to express my conviction of their general truth, and would myself reiterate his caution, to "shun architraves around windows." Of such, even if desirable, one might think there had been a surfeit at length, since now for some centuries every palace, clubhouse, prison, and workhouse, and all the myriads of modern houses, have had alike their every "hole" thus garnished with what are at best but "tame and feeble" decorations; and though, when more effect is sought, they are made more "*prononcé*" by clapping up a miniature imitation of a façade, with mock pediment and useless columns, looking as if glued to the wall as a frame round the opening, it is then but a sham, unworthy of architecture. That a simple architrave, executed in stone, and being really what it pretends to be, the properly constructed lintel and jambs, with perhaps a cornice to protect the window from rain, is to be tolerated, I am willing to allow, but still agree with Mr. Bailey, that it is a tame and feeble decoration; but such is rarely the case: it is usually a useless plaster excrescence, destroying the breadth of the wall, without giving any equivalent quality.

Your correspondent fears, that if debarred from his favourite architrave, "all finishing round the aperture" is dispensed with: this need not be the case: the angle may be splayed or moulded with excellent effect, and the window thereby incorporated with the wall, instead of being ingeniously disconnected from it by a series of ugly ruled lines. But the misfortune is, that these expedients require a slight amount of thought and originality; whereas

the adoption of the eternal, monotonous, uninteresting architrave saves both: that the slight thickness of our modern walls prevents the attainment of effect without architraves, is at once disproved by a reference to the admirable old domestic architecture at Bruges and other cities in Belgium, where the depth of reveal of the windows is often not more than 4½ inches. As to the definition of "breadth," I am inclined rather to take the explanation suggested by the scope of the paper than that given by Q. E. D.; namely, "the comparative infrequency and smallness of the apertures in a façade," since I imagine that that desirable quality may even be secured by their very frequency and size, or by means of their connection with the wall surface by similar ornament, as in most of the later Gothic structures.

J. P. S.

THE THEORY OF THE TIDES.

OBSERVING in your last number but one some observations on the tides, signed "W. Adolph," pointing out certain anomalies of the present theory of the tides, and arguing therefrom that that theory is not true, I beg leave to offer the following remarks, which will show your correspondent that the objections which he has stated do not exist in fact, and that, however inadequate our present means may be to predicate the actual time and rise of high water in any locality, there does not admit of the shadow of a doubt as to the truth of the present explanation of the tides.

Your correspondent, on the authority of Mr. Kerigan, states that calculations founded on the principles of universal gravitation, show that the moon would not be retained in her orbit by the mere force of terrestrial attraction; and as it is desirable to correct this fundamental error before proceeding further, I shall give briefly the calculations by which it is demonstrated that the moon is retained in her orbit by the earth's attractive force alone.

Let g = the space in feet fallen through by a body under the influence of gravity in one second, at the earth's surface; s = the space in feet similarly fallen through at the distance of the moon; r_1 = 3,957 miles = the mean radius of the earth; r_2 = 237,894 miles = the mean radius of the moon's orbit; t = 2,360,592 seconds = the time of a sidereal revolution of the moon; p = 3·14159; then by the laws of gravitation the space fallen through varies as the attractive force, and both inversely as the square of the distance. Therefore,

$$s : g :: r_1^2 : r_2^2$$

and

$$g = \frac{s r_2^2}{r_1^2}.$$

Again, the circumference of the moon's orbit equals $2r_2 p$; therefore, the space moved over in a second equals $\frac{2 p r_2}{t}$; and since, in a very small arc, the diameter of the circle is to the length of the arc, as the arc is to its versed sine, or by the space fallen through by the moon in a second, we have

$$2r_2 : \frac{2pr_2}{t} :: \frac{2pr_2}{t} : s$$

and

$$s = \frac{2^2 p^2 r_2}{t^2};$$

and substituting this value of s in the former equation, we have

$$g = \frac{2^2 p^2 r_2^3}{t^2 r_1^2}.$$

Substituting the values of the various quantities, and performing the calculation—

Logarithm of 2 =	....	·3010300
Log. p^2 =	.....	·9942997
Log. r_2^3 =	.....	16·1291505
		17·4244802
Log. t^2 =	12·7460420	
Log. r_1^2 =	7·1947322	19·9407742
		3·4837060
Log. 5280 (no. of ft. in a mile) =		3·7226339
Log. of 16·082 =		1·2063399

We thus see that the calculation gives 16·082 feet, the same, within an extremely small fraction, as the value derived by direct experiment, which gives 16·0954 feet.

Your correspondent further appears to be under the misapprehension that the attraction of the earth and moon is not mutual, whereas it may be shown that, whatever may be the cause of the phenomena of attraction between the two bodies, the effect must always, and under all circumstances, be mutual and reciprocal.

And again, he appears to suppose that the atmosphere influences the phenomena of the tides; that the pressure of the atmosphere tends to prevent the rise of the tide, and has to be overcome when it actually does rise; and further, "that, according to the theory of the tides, the moon would draw up the entire sea, if the air was not between." Now, the fact is, that the atmosphere no more opposes the rise of the tide than it does the rise of one of the scales of a balance; and for the same reason, namely, that the atmosphere presses equally over the whole surface of the ocean, as it does on *both* of the scales of the balance; and that one part of the ocean can no more rise without some other part sinking, than one scale can rise without the other falling; and, therefore, that the work performed by the ocean in rising against the atmospheric pressure, is precisely equal to the force imparted by that pressure on the portion which is sinking.

Your correspondent inquires, how is it that the time of the moon's passing the meridian precedes the time of high water? and, further, what is the reason why such small tides are observed in the Mediterranean and some smaller inland lakes? Now it must be remembered that the phenomena of the tides are the result of water thrown into *motion* by an external force ever varying both in direction and amount, not of water in a *quiescent* state, under the permanent influence of a uniform and constant force; and they must therefore be investigated by the laws of dynamics, and not those of statics. This fact is sufficient to explain at once the whole of the anomalies to which your correspondent refers: the tidal wave does not arrive at any given spot so soon as the moon because of the obstacles which have to be overcome in its passage, and it rises to a greater height in some localities than others, because of the greater or less, the more sudden or gradual, resistance which the shores of the ocean offer. Again, in the case of the Mediterranean and other inland seas, the water does not rise under the attractive influence of the moon, because there is no means of supply, whence the enormous body of water requisite to produce any appreciable rise in the sea, could be derived in so short a space of time as the duration of the flow of the tide; and the sea itself is so small that the moon acts with nearly equal force over its whole surface, any small rise of the tide which is actually observable being due to such inequality in the moon's attractive force upon different portions of the inland sea itself.

I will not trespass longer upon your valuable space, but at some future period may, with your kind permission, offer a few remarks in explanation of some of the tidal phenomena, the study of which is so important a branch of hydraulic engineering, and therefore worthy of a place in your journal, which I believe to be as extensively consulted by the engineer as by the architect.

LEX.

ROYAL PRINCESS'S THEATRE.—The scene of Mr. Lovell's new play, "The Trial of Love," is laid in Newark, during the siege by the Parliamentary troops in 1644, and admits of several architectural views, of which the artists have taken very satisfactory advantage. An Elizabethan room, with a carved chimney-piece, and the closing scene—a Gothic hall, with screen and canopy-work—may be particularly mentioned. We do not rank the play quite so highly as some of our contemporaries, but it is, nevertheless, an excellent production, and will afford legitimate enjoyment to all play-goers. It is admirably played by Mr. and Mrs. Charles Kean, Mr. Meadows, and Miss Marshall.

THE CONSTRUCTION OF PORTLAND BREAKWATER.

THERE is no doubt but that this great work is one displaying in high degree the perfection which scientific and practical engineering has now attained, and one which reflects credit on those employed upon it. But in these times, when everything has to be brought to the test of £. s. d. we must take another view of the subject; and since the nation has to pay for it, we must see if the same result could not be obtained by a few hundred thousands less expenditure.

The creation of harbours of refuge is a praiseworthy object in every respect, and we could scarcely have too many; but unfortunately, owing to the costliness of the mode of construction adopted, they must inevitably be few and far between. In opposing a barrier to the fury of the ocean, we cannot do better than take Nature's own works for our model: that is to say, when we wish to construct such a barrier, it will be quite sufficient to throw down a line of rocks in the required direction, each rock so thrown down being alone of sufficient weight and magnitude to resist the utmost force of the waves. It is evident that if we entirely leave out the filling up with small stone or rubble work, which is of no use whatever, except perhaps for injury, in offering a solid mass for the sea to break against, we shall have a breakwater containing less than half the cubic contents of solid stone, consequently costing less than half, and, under the peculiar circumstances of an unlimited supply of waste stone or roach, as it is locally called, close at hand, and of any dimensions, not much more than one-fourth of the ultimate cost of the breakwater now constructing at Portland.

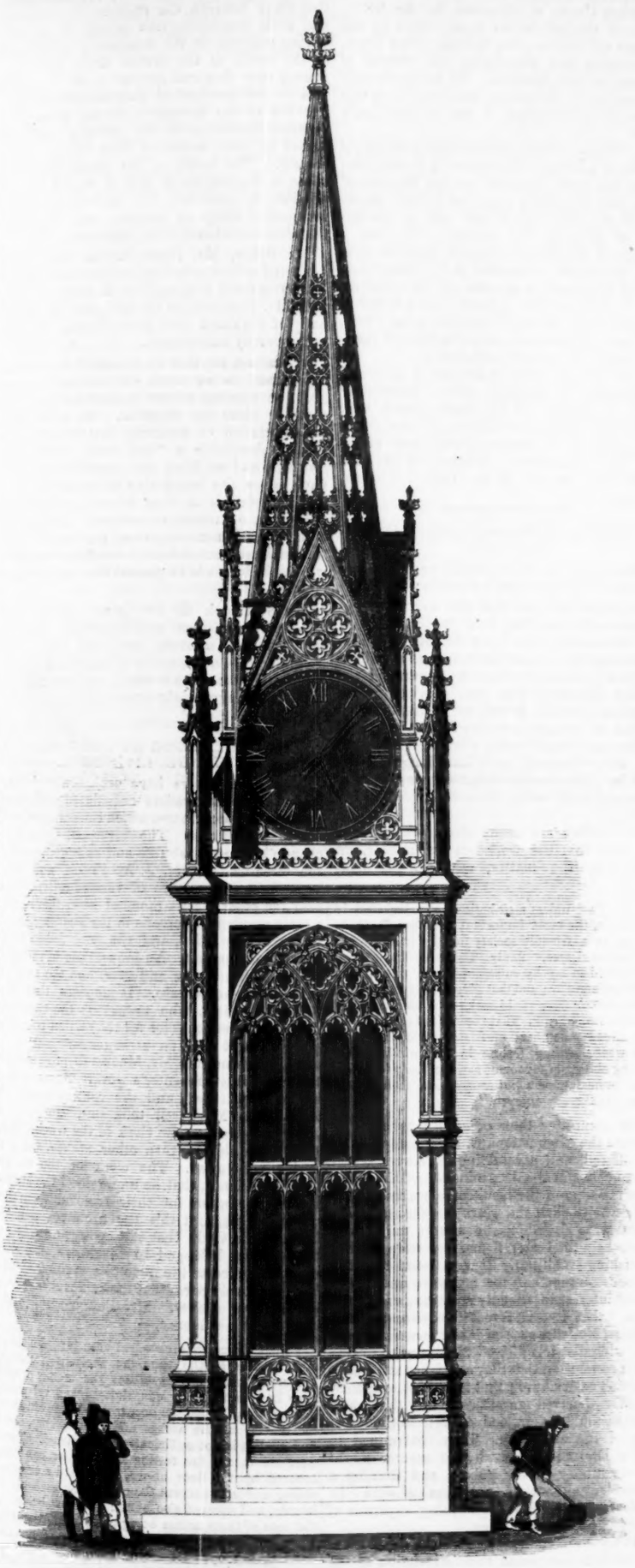
It will be said, however, that such an open-work breakwater, though producing smooth water inside, cannot be made available as a landing pier, and certainly we ought to combine these two objects together for the sake of economy. No; that is the fundamental error. It will be far cheaper to construct an independent landing pier within and under the lee of the outer breakwater, if such convenience should be required: besides, it will be quite sufficient to lay down the breakwater at the national expense: private enterprise will do all the rest.

This is no new idea I am throwing out, for all persons conversant with the Mediterranean are well acquainted with the numerous breakwaters constructed centuries since for the protection of the ports and harbours of these shores. They are called by the Italians by the significant name of "*Scogliera*," in English "*rock-work*," and are formed entirely of huge blocks, roughly squared, varying from 20 to 30 tons each, without any filling up whatever. They have merely been pitched down upon and between each other until the mass has risen above the highest water-mark. All the quays, piers, and landings have been universally constructed in the smooth water under the lee of these Cyclopean rock-works.

Unfortunately in England there is so much capital to be employed, that engineering plans that do not cut out much work for the contractors are liable to be shelved; for the contractors of the present day are big men, and have much influence they are Members of Parliament, and have many friends in and out of the House; so that engineers are shackled and hampered in forming their plans, and cannot reduce them to their utmost simplicity, but, on the contrary, are compelled by circumstances over which they have no control, to introduce as much contractor's work as possible, and the nation, or, as the case may be, the shareholders, have to pay for it.

HENRY W. REVELEY, C.E.

FALL OF A BUILDING IN FRANCE.—It was lately observed that one of the principal walls of the hotel, the Lion d'Or, at Condoms, threatened to give way, and an architect was called in to examine it. While inspecting it a violent cracking was heard, and all at once the house fell in. By chance, every person residing in it was out at the time.



NEW CLOCK-TOWER, LONDON BRIDGE.
MR. CHRISTOPHER EDMONDS, ARCHITECT.

PROPOSED CLOCK TOWER IN SOUTHWARK.

MR. BENNETT, of Blackheath, having liberally offered to place the large clock contributed by him to the Great Exhibition in 1851, at the disposal of the Commissioners for Lighting the West Division of Southwark, they have determined on erecting a tower in which to place it on the spot where the lamp pedestal now stands, at the foot of London-bridge, at the corner of Duke-street, and the entrance to the railway stations. A design was made by Mr. Christopher Edmonds, the surveyor to the Board, and of this we give an engraving. It will be quadrangular, nearly 60 feet high, and will be constructed of cast iron. The four dials, each 6 feet in diameter, will be of white glass, strongly illuminated at night, and the windows will be filled with purple flashed glass. The cost is calculated at 700*l.* half of which is to be paid out of the rates, and the other half is to be raised by subscription.

It is a very happy idea, and we shall be glad to see the example followed. The parish ought to feel much obliged to Mr. Bennett.

It must not be considered, either in this or other cases, that because we publish the design, we necessarily approve it. We seek to make our readers acquainted with such of the new structures rising about us, or proposed for erection, as are likely to interest them on one ground or another, and when, to enable us to do this, we are obliged to apply to their designers for the materials, condemnatory criticism would be ungracious, and we give the views simply as facts, without comment. In the present instance we have no hesitation in saying that the design is not satisfactory. Looked at without reference to the material of which it is to be composed, the form of the buttresses at the angles is not good, and windows in such a position are unmeaning and false: but the radical error is this, that the proposed tower is a reproduction of a stone building in iron, and is for that reason wholly indefensible. The two materials require entirely different treatment, and we shall have done good service if Mr. Edmonds, taking these remarks in the spirit in which they are offered, be led to reconsider the matter, and produce a design having proper reference to this undeniable proposition.

THE LATE MR. JAMES SAVAGE, ARCHITECT.*

MR. JAMES SAVAGE was born at Hackney, Middlesex, April 10th, 1779. After receiving his education at a private school, he was articled to Mr. Alexander, the architect of the London Docks, under whom he acted for several years as clerk of the works. In 1798 he was admitted a student of the Royal Academy. In the year 1800 his design for improving the city of Aberdeen obtained the second premium of 150*l.* he being then under twenty-two years of age. In 1805 he was the successful competitor among the numerous architects who submitted designs for rebuilding Ormond-bridge over the Liffey, Dublin; and in 1808 he furnished the design for Richmond-bridge, over the same river, which was carried into effect. In 1806 he presented to the London Architectural Society, of which he was a member, an essay on bridge building, which they published in the second volume of their "Transactions." In 1815 his design sent in competition for a stone bridge of three arches over the Ouze, at Temsford, in Bedfordshire, with the adjacent road and flood bridges, was selected by the magistrates of the county. In 1819 his plans for building St. Luke's Church, Chelsea, were selected, from among above forty designs. This church is an imitation of the Gothic churches of the fourteenth and fifteenth centuries, and is noticeable for the ceiling of the nave, which consists of a groined vault of solid stone, whose lateral pressure is resisted by flying buttresses, also of solid stone. In the original design for this church the tower was terminated with an open spire, similar in principle to that of Sir Christopher Wren's church, St. Dunstan's in

* From a communication to the Royal Institute of British Architects, by Messrs. H. and C. W. Savage.

the East; but the Board of Works considered it their duty not to sanction the construction of such a spire, and put their veto upon it accordingly.* In 1823 his design for the new London-bridge was submitted to a committee of the House of Commons. His design for the bridge was highly approved, but the committee, by the casting vote of their chairman, decided in favour of the design of the late Mr. Rennie. Among several others, he was one who made a plan (in 1825) for improving the river Thames, but, while they selected the north bank for their operations, he chose the south bank. This scheme he named the Surrey Quay, which he proposed should extend from London-bridge to Bishop's-walk, Lambeth. Much of his practice consisted in arbitration cases, and the investigation of architectural and engineering questions brought before the courts of law. Among these was the long protracted Custom-house case of the Crown *v.* Peto, in which the defendant attributed his success mainly to the evidence of Mr. Savage.

About 1830 he succeeded the late Mr. Hakewell as architect to the Society of the Middle Temple. He erected the Clock Tower to their Hall; also Plowden-buildings in Middle Temple-lane, and other works.

In 1836 he published, "Observations on Style in Architecture, with Suggestions on the best Mode of procuring Designs for Public Buildings and promoting the Improvement of Architecture; especially in reference to a Recommendation in the Report of the Commissioners on the Designs for the new Houses of Parliament."

In 1840 he was commissioned by the Societies of the Inner and Middle Temple to prepare designs for the restoration of the Temple Church; and the works were fast progressing, when a disagreement between the societies and Mr. Savage induced the Benchers to apply to other architects to carry on the works, which, after some delay, were, however, completed according to the original intentions of Mr. Savage, a few unimportant alterations having been introduced.

Among other buildings and works which he designed and executed, the following may be mentioned:—Trinity Church, Sloane-street; St. James's Church, Bermondsey; Trinity Church, Tottenham-green; St. Mary's Church, Ilford, Essex; St. Michael's Church, Burleigh-street, Strand; St. Thomas the Martyr Church, Brentwood, Essex; St. Mary's Church, Speenhamland, near Newbury, Berks; St. Mary's Church, Addlestone, Chertsey, Surrey; two bridges on the road made through the crown lands at Reading, Berks; the new floor and bell frame, and repairs to the broad tower of Lincoln Cathedral, to receive "Great Tom," re-cast by Mr. Mears, of London, in 1836; repairs to the belfry floor and bell-frame of St. Mary-le-Bow, Cheapside, London, so as to enable the peal of twelve bells therein to be rung with safety, which had not been rung out for very many years prior to the alteration; the Baptists' College, Stepney; Bromley and Tenterden Union Workhouses, &c. &c. &c.

One of the last works upon which he was engaged till within a few months of his death, was altering and beautifying the Church of St. Mary-at-Hill, London. He had previously executed great alterations and repairs to this church in 1827-8, when it was in fact nearly rebuilt.

Mr. Savage was a citizen and Skinner of the city of London. He was also a Freemason; one of the oldest members of the Surveyors' Club; and, for a long period of his life, chairman of the committee of fine arts of the Society of Arts, in the Adelphi. He was a member of the Graphic Society, from the time of its formation, a member of the Institution of Civil Engineers, a member of the Architectural Society, and for a short time a fellow of the Institute of British Architects, from which, difference of views upon some matters of regulation induced his early withdrawal.

With the exception of attacks of gout and rheumatism, he enjoyed perfect health, till within six months of his death, which took place, after a fortnight's illness, on the 7th of May, 1852, in the seventy-fourth year of his age. His remains were interred on the 12th of the same month, at St. Luke's Church, Chelsea.

* To show the extent to which prejudice and timidity may mislead not only individuals but public bodies, the design for this structure (Chelsea Church) had been approved, the working drawings and detailed specification made out, the contractor engaged, and the building very considerably advanced, before the Parliamentary Commissioners for building New Churches, under whose superintending power this work was to be carried on, had actually discovered that the architect had designed to arch the groined ceiling of the nave with *real solid stone!* On this information coming to light, it was considered necessary immediately to assemble a council, to take into their most serious consideration the danger which was threatened to both Church and State if so daring a mode of procedure were allowed: nor would they permit it to proceed until the architect had been asked if he was willing to be answerable for the consequences in the event of a failure. In the original design it was intended to raise a spire on the tower, as mentioned above, somewhat like that of St. Dunstan's-in-the-East, near the Custom House, but this was considered too formidable a proposal: it was, in fact, too ingenious for their comprehensive powers to understand. The architect produced a large model of his proposed spire, composed of separate pieces of wood jointed proportionally, and exactly as the stones would be if it were executed: these distinct parts were merely piled up without anything whatever between them to act as a cement, nor were the joints at all banded or joggled together as the stones would be in execution; yet this rude model, with so many unfavourable circumstances, bore considerable vibratory shocks before it fell; but the impression of danger had already too powerfully affected the minds of the local and senatorial authorities to admit of confutation, notwithstanding mechanical, philosophical, and mathematical demonstrations and experiments were produced to elucidate the plan; consequently the architect was compelled to abandon his project.

PROVISION FOR THE FUTURE—MASTERS AND MEN.

ABANDONMENT OF THE PROPOSED BUILDING AND ENGINEERING WORKMEN'S FRIENDLY SOCIETY.

WE regret to hear that the committee appointed at the meeting held in Guildhall, on 11th December, 1849, have not succeeded in organising the proposed society, and are about to return to the subscribers the amounts placed at their disposal. The total sum subscribed was about 1,100*l.* It will be recollected that the idea of forming a society for the benefit of building and engineering workmen originated with Mr. Cockerell, who had long felt the want in this country of some strong bond of union and good feeling between employers and employed.

Our readers are aware that meetings were held, and that the workmen themselves, on considering the matter, came to the conclusion—

"1st. That unless a *sick fund* was included in the scheme, the most important element would be wanting in a friendly society for the building and engineering classes. 2ndly. That very few of them could afford to lay by sufficient money to purchase a deferred annuity; and that *they feared the average length of their lives* would make such an investment questionable. 3rdly. That the majority of the men were already members of friendly societies; that there was a strong feeling in the minds of the working classes in favour of savings banks, because of the immediate *personal control* over their savings which was thereby enjoyed."

The committee then proceeded to consider *seriatim* the suggestions which the deputation had offered, and several inquiries were set on foot to assist in the determination of the questions raised, and the result of a protracted inquiry was to elicit the gratifying fact that sick funds were found to be almost universally adopted by the larger firms, and were in very flourishing condition. It was found that the evidence of most of the actuaries and others taking interest in friendly societies, was to the effect "that it was impossible to watch *with sufficient vigilance over large sick societies* spread over wide districts;" and the committee came to the conclusion that they could not attempt to establish such a fund; that it was not expedient to offer deferred annuities; but that their efforts should be directed entirely to the question of life assurance. They determined to add a loan fund, whereby an assurer might borrow money on his policy; and that by a benevolent-aid-society provision should be made for paying all the working expenses of carrying on the association.

At a second conference with the deputation, the workmen repeated their conviction of the necessity that a sick fund should form the main feature of a friendly society, and frankly stated that, in their opinion, the society *would not be acceptable* to the workmen on the principles proposed. Moreover, the differences that arose between the engineering workmen and their employers, now happily at an end, having resulted in the conviction on the part of the heads of the several firms, that it is *equally their duty and interest* to aid the workmen in the conduct of their benefit societies, has led to the formation among them of a separate institution of this character, and has issued in their secession from the proposed society. The result is, the committee have come to the conclusion that it would not be possible to establish the society with any prospect of adequate success; and they have therefore abandoned their intention.

Mr. Baker, Mr. Piper, Mr. G. Wales, who has acted as hon. secretary, and some few others have remained sanguine, or at least hopeful, with Mr. Cockerell, to the last, and the whole body of workmen owe them thanks for their praiseworthy endeavours.

We cannot say that the failure of the attempt has caused us so much surprise as it has regret: at starting we saw reasons for believing that the issue was doubtful. We agree with the deputation of workmen, that to make the society acceptable *a "sick fund" was indispensable*, and we think the committee should have taken the better view of human nature, and included it in their scheme, even at the risk of an occasional imposition. Care in the admission of members, proper regulations, and the establishment of district committees might, we think, be made to protect the funds sufficiently.

We still look for one great and general "Builders' Provident and Benevolent Institution," uniting masters, men, and employers by kindly ties, and capable of supplying all the wants and necessities to which accident, misfortune, or old age, might expose them.

FALL OF FLOOR AT THE CORN EXCHANGE, LIVERPOOL.

THE daily papers have probably made the majority of our readers acquainted with this unfortunate occurrence, which caused the death of two individuals. The Liverpool Corn Exchange has been rebuilt, and enlarged, under the direction of Mr. J. A. Picton, and has beneath it two ranges of vaulted cellars, one over the other. At a moment when there was a large number of persons in the building, two of the arches failed, and the floor fell in to a considerable extent. An inquest has been held on the bodies of the sufferers, and the matter carefully inquired into. It appears that the builder (Leader), who undertook the contract in the first instance (for 8,115*l.*) failed to complete it, and that an arrangement was then made with a second (Mr. Mackarell), to execute the remaining carpenter's work. Some of the arches were turned, and the centres remained in. These Mackarell took out, under the superintendence of the clerk of the works (Mr. Code), in order to turn other arches, and the accident followed. The clerk of the works said in evidence, that he understood the architect to give orders for their removal from the upper arches, but this the architect denied. He had told Code that the centres already on the premises belonged to Mackarell, and that might have led to the misunderstanding. He had previously permitted the removal of those in the lower arches. Mr. Picton said, in the course of his evidence,—

"That the upper arches had been turned eight or nine months at the time the accident occurred. Under ordinary circumstances the mortar would have been sufficiently consolidated and set under these arches. Since the occurrence I have examined the mortar of the arches and the backing, and I find that it is not sufficiently consolidated. There were no means for testing this, the arches being covered by the floor above, which had a counter-ceiling under to prevent the cold drafts through the boards, and covered also by the centering below. At the time of these arches being constructed it was the latter end of the year—a time of great rain. The building lay open for a long time, waiting for the iron ribs of the roof and the plate glass. Of course all the rain that fell saturated the arches and backing."

The clerk of the works said he considered

the cause of the accident was, that the sleeper-walls were placed the wrong way of the arches.

Mr. Edward Woods, Engineer, called in by the Coroner to assist in the examination, said,—

"He was of opinion that the workmanship of the arches was executed with proper care. The bricks were good. The joints were close. The piers had been built in good cement. But the mortar of the arches had not properly set. That the accident is mainly attributable to the unseasoned condition of the mortar of the arches at the time the pressure came upon them. The mortar was saturated with moisture, and had consequently little cohesive power, and little capacity to sustain compression. That the sleeper-walls being built along the haunches of the principal arches, the weight of the flooring and its load exerted its pressure upon the haunches of the arches only. That this pressure tended to depress the haunches and to raise the crown. The soft state of the mortar and the thickness of the brickwork presented but a slight resistance to such a compression. That the arch was consequently fractured across inwards. That the next arch was left unbalanced, and the intermediate piers were consequently overthrown. That the amount of pressure which caused the accident would not suffice to account for the failure of the arch had the mortar been properly consolidated. That, considering the then existing condition of the mortar, and also having regard to the general construction of the building, it would have been a prudent and necessary precaution to have slackened the centres uniformly and gradually over the entire area, and not removing any of the centres until the mortar had become thoroughly dry, and had compacted the brickwork into a solid mass. That this premature removal of the centres, taken in connection with the circumstances adverted to, namely, the greenness of the mortar, the thickness of the arch, and the mode of the distribution of the pressure upon its surface, would conspire to cause the accident. The mortar was of fair, ordinary quality."

Mr. Rishton, one of the borough surveyors, concurred in Mr. Woods' evidence.

The jury, after three hours' deliberation, brought in a verdict of "accidental death," and made the following presentment:—

"That Philip Code is highly blameable for allowing the centres to be removed from the upper arches without previously applying for, and obtaining, the express permission of Mr. Picton, the more especially as he had expressed an opinion that he considered it dangerous to remove the centres till the whole of the building was completed; that he was also blameable for not requiring of Mr. Mackarell to supply new centres for the new arch, according to the specifications.

That Mr. Mackarell is not without blame, in failing to provide the necessary centering to carry on the works, agreeably with the specification.

Neither do the jury consider the Corn Exchange Committee entirely free from blame, and that it is a practice much to be censured that public bodies take the lowest tenders for work, without regard to the means of the parties to carry that work to completion.

That the jury exonerate Mr. Picton from blame, in reference to the removal of the centres of the upper arches, believing that his permission to remove any of the centres was specifically limited to the lower arches."

THE MEDIÆVAL BUILDINGS OF POITOU, IN FRANCE.

SOME time since Mr. J. H. Parker, in continuation of a memoir read during the last Session of the Society of Antiquaries of London, upon the principal Buildings of the Middle Ages in the West of France, and particularly in the county of Anjou, addressed a second letter to Captain Smyth, upon the buildings of the same age and character in Poitou.

The object of Mr. Parker's paper was two-fold:—

1. To show the provincial character of the buildings of Poitou, which, though approaching more nearly to those of Anjou than any other, have still a certain distinct character of their own, as may be observed of most of the ancient provinces of France. This Poitevin character partakes of that of the north and of the south of France in rather a singular manner, as might perhaps be expected from its geographical position, the domical vaults being borrowed from the south, while much of the detail resembles rather that of the north.

2. To show that the buildings of Poitou, as of Anjou, are more advanced in style than those of Normandy at the same period, and still more in advance of England. Four churches are recorded to have been built in Poitiers in the eleventh century, and the remains of these four are so much alike, and so much what might be expected from their history, that there seems strong reason to believe the existing structures belong in great part to that period. One of these, St. Hilary, is a very large and fine church, partly rebuilt in the twelfth century, or not completed till that time. St. Saviour in Poitou is another large and fine church, the walls of which are covered with paintings that cannot be later than the eleventh century, and an inscription appears to fix that date for it. We had no buildings of this magnificence in England until quite half a century later. The progress of architecture appears to have been from the south to the north, by several distinct lines and in successive stages, each having a certain character of its own. That part of the cathedral of Poitiers, which was built by Henry II., consisting of the choir only, is rather more advanced in style than buildings of his style in England; but not more so than the Hospital of St. John at Anjou, also built by him. Mr. Parker endeavoured to call the attention of English antiquaries to these English provinces of France, and exhibited a series of drawings of the buildings mentioned.

ANCIENT AND MODERN MARBLES.

THE following memoranda on marbles may, perhaps, interest some of your readers:—

The Parian, or *hard Greek Marble*, is the most white and beautiful of all statuary marble. The surface is remarkably smooth, and the grain composed of large scales. The statue of Minerva in the Vatican is of Parian marble.

Tyrium, or "*Greco Turchinecchio*," has a colour inclining to blue, and is remarkable for the fact that the steps of the "Scala Santa," taken from Jerusalem, are made of it.

Marmo Lunense, or *Carrara*, has a fine grain: the colour is more soapy than the Parian, containing occasionally dark and apparently metallic blotches. The quarries near Lima, a town or bay in Tuscany, on the confines of Liguria, were worked in the time of Julius Cæsar, and the marble precisely corresponds with the Carrara of the present day.

"*Giallo Antico*," or *Marmor Numidicum*, has a grain exceedingly fine, ground always yellow: the tints vary very considerably, the more dark the more valuable the marble. It has been compared by ancient writers to many different objects, such as ivory grown yellow with age, the golden rays of the sun, saffron, &c. Sometimes it displays a purple hue, and sometimes the lightest possible shade of yellow, some as bright as gold (*Giallo Dorato*), another orange (*Giallo Capo*), again, another sort the colour of a canary bird, which is extremely valuable and rare (*Giallo Paglia*); finally, another of a reddish tint called *Carnagione*, very beautiful and highly valuable when the colour, which is sometimes the effect of fire, is natural. There are six large columns in the Pantheon at Rome and one pair in the arch of Constantine composed of Giallo Antico.

Marmo Rosso Antico.—It is an extraordinary fact, that neither the ancient name of this beautiful marble, nor the country where it was quarried, is known. The colour is never bright red, but resembling liver, and covered with minute black crooked lines, like net-work: livid white blotches, characteristic of a "Brecia," on union-marble, appear on it occasionally, and sometimes livid white veins. The celebrated Fawns in the Vatican, in the Museum of the Capitol, and in the Palazzo Doria, are all of this marble.

Marmo Noro Antico.—Colour deep black, fine texture, marked occasionally with minute white short straight lines, but always broken and interrupted. Some fine specimens are in the museum of the capitol; but the largest masses in Rome are a pair of columns in the church of Regina Corla, and a table in the Palazzo Altempo.

Marmo Cipollino.—The colour of this is bright green on a yellow ground, or sometimes black on a white ground, and occasionally blended with a ground of yellow. This is a very rare marble. There are columns in the temple of Faustina and Antoninus in the Roman Forum, but the tints vary so much that it is difficult to define any: a kind with white ground and streaks of bright green is very beautiful, but very rare.

The above only forms a mere outline of the various antique marbles.

The marbles imported into this country from abroad are very various at this time, besides those of native Irish, some of which bear great affinity to the "antique."

Statuary White Marble is of the same quality, and from the same quarries as were in use in the time of Julius Cæsar. The texture is eminently beautiful—close and fine-grained, and in colour white as snow. When, however, it is perfectly *pure*, the value is very great: this occurs so rarely that any price is paid for a block opened, so that the quality may be seen.

Veined White Marble.—The texture is somewhat of statuary, close grained, but streaked with blue and black marks.

Bianca Chiara, or *Sicilian.*—This marble was comparatively unknown in England until introduced by the late Sir Francis Chantrey, who gave it the English name of "Sicilian," though it is well known to come from Tuscany, adjoining the statuary quarries. The ground is generally of a bluer cast than "*veined*," with "dots" of blue or black, instead of "streaks."

Porte Venere, or *Black and Gold Marble*, is a very beautiful black marble, with veins of gold or yellow, variegated all over it. The brilliant gold-like colour has caused it to be highly esteemed and given its English name.

Dove Marble, is as its name implies, "Dove," delicately marked with white blotches. The texture is close and fine.

Bardiglia Marble is somewhat of the "Dove," but more decided in its marks, of either a faint blue streak, or, in some and more valuable kinds, the colour approaches almost a black on its dove-ground.

Siena is very similar to "Giallo Antico," in texture perfectly so, and occasionally in colour. It is highly and deservedly esteemed, and varies as much as the description of the Giallo Antico, to which I refer.

I have lately seen, at Whitehall-wharf, some beautiful blocks of coloured marbles,—"red," "yellow," "green," and a mixture or "rainbow" description; all are equal to "antique," and some seem new in this market; also some Irish green, the colours of which may in part be likened to "malachite." It is very doubtful, if the ancients quarried blocks of black marble, of such large size as are now imported into London, from Galway. A MERCHANT.

METROPOLITAN BUILDINGS ADMINISTRATION BILL.

AS we forewarned our readers, nothing will be done with the Buildings Act this session. Lord John Manners's Bill, of which we gave an abstract in our last, has been dropped. We are forced to regard it as a very inefficient and objectionable Bill, and are glad, therefore, to get rid of it: it ought never to have been brought forward. We must strenuously protest against thus uselessly occupying the public attention and wasting the public money.

COMPETITION FOR THE LEEDS AND YORKSHIRE ASSURANCE BUILDINGS.—We understand that there were fifty-four designs submitted, and the directors having availed themselves of the assistance of an architect, awarded the premiums as follows:—The first premium of 50*l.* to Mr. W. B. Gingell, of Bristol; the second premium of 25*l.* to Mr. E. H. Martineau, of London; and an additional premium of 25*l.* to Mr. J. Dobson, of Leeds. The selected design is to be immediately carried out under the superintendence of the architect.

REGISTERED INVERT BLOCK FOR THE BOTTOM OF SEWERS.

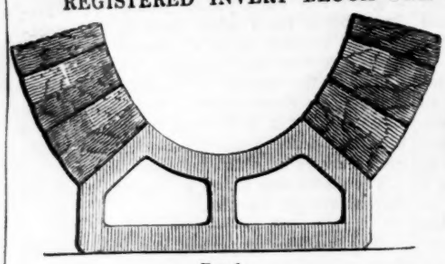


FIG. 1.

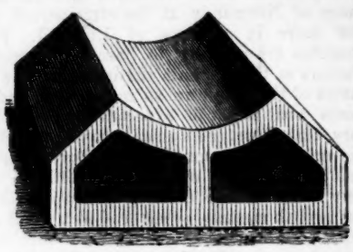


FIG. 2.

REGISTERED INVERT BLOCK FOR THE BOTTOM OF SEWERS.

MESSRS. DOULTON and Co. have recently registered an "invert block," which is intended to form a uniform and permanent surface for the bottoms of sewers and culverts, in addition to making a better foundation for the structure. The sectional elevation, fig. 1, represents the position of the block in the sewer. Fig. 2 is a view of one of the blocks. The concavity coincides with the "egg" curvature of the sewer, whilst the sides are inclined at the proper angle for receiving and supporting the superstructure. The base is level, to afford a good bearing surface, the hollow being to lighten the block, and may be used to carry away the superfluous land-water. The block is made of the ordinary stoneware, and appears to be a very useful application of it.

EPISTOLARY CHAT FROM PARIS.

THE following extracts from a letter I have just received from a friend now at Paris will, I conceive, not be unacceptable; therefore, as I shall not be guilty of any breach of confidence or other impropriety in communicating them to you for your journal, I venture to do so:—

"I have made inquiries," says my friend, "of all the publishers to find drawings and descriptions of the Church of St. Vincent de Paul, but without success. Grimm, the publisher of the *Moniteur des Architectes*, told me that Hittorff, he believed, had given some account of that edifice in his work on Polychromatic Architecture. To obtain a copy of that book was my next employment, for Grimm had it not, neither had Matthias, or any of the others in trade whom I tried. At last I went to the Bibliotheque National, where, on asking to see it, I was informed that, just a few days before, the Prince President had sent for that and several other architectural works, which had accordingly been forwarded to the Elysée. This looks as if the authorities, or rather the authority, here takes a direct interest in architecture, even to the extent of consulting books upon it, and was determined to judge for himself!"

After a good deal more, which I omit, my friend proceeds to say:—"From some conversation which I have had with ——, &c. I have every reason to believe that an *exposé* of Ruskin's doctrines would be not a little acceptable to the architectural world here; for even here he has more than one admirer among the superficial or ignorant, who are always caught by clap-trap phrases and chimerical fancies."

That, whatever others may be, the whole of the profession in France, and I should think nearly everywhere else, must be strongly opposed to views which are subversive of present practice and system, and that not in architecture alone, but in various other branches of art and manufacture also, scarcely admits of doubt. In fact, before Ruskinism could be established, a complete revolution in taste must be effected—a species of revolution not likely to happen even in France.

In another part of his letter, after speaking of some private affairs, my friend says:—"To return to matters more congenial to our tastes: I have seen the architectural drawings of this year's *Exposition* in the Palais Royal. What a contrast to the way in which they manage such things in England! The drawings are hung in a capital and well-lighted gallery,—are not at all crowded together,—nor are any of them placed much above the line of vision. Some of them are quite gems of art. In nearly all cases, too, projected buildings are fully explained by as many plans, elevations, and sections as the particular subject may require. In short, no pains seemed to be spared, but *con amore* study and diligence are shown. There are several *projets* for completing the Louvre, but I reserve my remarks upon them and several other things for conversation."

The above extract does, indeed, exhibit a contrast the reverse of flattering to ourselves. If it does not reproach us for inferiority of talent, it does for the unaccountable apathy which betrays itself here at home. Our Royal Academy embraces architecture only to smother it: it salutes it, but only with the kiss of a Judas. Yet, verily, so long as it does continue to admit architecture into its exhibitions, it ought to show itself equally attentive to it—equally watchful over its interests as over those of painting; whereas at present the former art may be said to be rather insulted than fostered by it, and to be treated with the most contumelious indignity; which could hardly happen did those R.A's who do, or are supposed to, represent architecture in the august body, perform their duty; and—but, perhaps, you will thank me for suppressing, quite contrary to my own inclination, what I do, being very doubtful whether, although I alone would be resposible for it, you would allow me to utter it in THE BUILDER. AN ARCHITECT.

LIVERPOOL ARCHITECTURAL SOCIETY.

THE report from the council just now published says,—

"There has been no dearth of communications during the session—many of great practical importance either to the science or the art of architecture. In the former may be instanced the communications from Mr. Elliott, of Blisworth, on the manufacture of vitrified bricks, and of Mr. Chantrell upon the application of fire and other clays to building and sanitary purposes. In the latter, Mr. F. Howard's contributions, and the essay upon the use of the pediment in modern architecture by Mr. Huggins, whose elegant contributions to our professional organ, THE BUILDER, have obtained extended circulation by translation into a continental language. Mr. Barry's communication upon the arrangement of union workhouses is also of considerable value, as treating of another phase of professional practice; and the council hope that it may be followed in future sessions by similar descriptions of the most desirable arrangements for schools, club-houses, counting-houses, banks, hospitals, and other buildings. Nor should reference to the several discussions in connection with St. George's Hall be omitted, since your council hope that they have resulted in a practical solution of the difficulty in the position of the organ as furnished in the plan suggested by Mr. H. P. Horner. The proper seasoning of timber is of vast importance, not only in building connected with architecture, but in many other trades also,—ship-building and cabinet-making, for example; and it may be in the recollection of the members that in the session of 1850-51 their attention was drawn to a mode of seasoning timber by its exposure to streams of hot-air, which had been patented by Messrs. Davis and Symington, and which had been introduced into Liverpool by Mr. Gregson, in his extensive saw-mills in Harrington. On the invitation of the company who now own the patent, your council undertook to conduct some experiments with the view of testing the value of this system. For this purpose they appointed a committee, consisting of the president, vice-presidents, Mr. Hay, and the secretary. This committee report that they have not been able to complete the experiments, although they hope to do so shortly; and your council, therefore, recommend that these gentlemen should be requested to continue their services until their inquiry is completed, in conjunction with Mr. H. P. Horner, who has rendered them considerable assistance. This committee wished to acknowledge the very polite attention and assistance they have received from Mr. Gregson, at whose saw-mills the experiments are being tried."

Notices of Books.

Société Centrale des Architectes, Fondée le 27 Mars, 1843. *Bulletin pour l'Année* 1851. Paris.

THE objects of the Central Society of Architects in Paris are to offer a point of union to all architects, French and foreign, pursuing either the theory or the practice of the art, to induce amongst them sentiments worthy of their profession; to examine any proposition submitted to them touching architectural practice, art, jurisprudence, &c. and to enter into communication with other bodies established for similar purposes. It consists of about 320 members, including the principal architects of the capital. Candidates to be eligible must possess a stipulated amount of knowledge, have given proofs of capacity and experience, and be in no way connected with undertakers of work (contractors), either as partner, clerk, or designer. It is their practice to refer the processes, propositions, books, &c. submitted to them to a small commission appointed out of their body; and the interesting volume before us contains several valuable reports, the result of this practice.

Mons. Gourlier was the principal secretary last year, and has been succeeded by Mons. C. Daly.

Schools and School-Houses. A Series of Views, Plans, and Details for Rural Parishes. By JOSEPH CLARKE, Architect. London: Masters, Bell, and J. H. Parker. 1852.

IN this volume Mr. Clarke has given plans, elevations, and details, of twelve schools on twenty-five plates, and two other plates showing the arrangements of schools as now directed by committee of council. We say *now* directed, because the committee appear to have thrown overboard all the designs and regulations which up to that time they had issued for guidance, and without attention to which there was very little chance of obtaining a grant. The number of bad churches, bad schools, bad workhouses, and unhealthy dwellings, which we owe to Government commissioners, the Privy Council, and Acts of Parliament, is distressingly large.

The schools given in the volume before us are at Monk's Horton, Lydd, Little Bentley, Coggershall, Coopersale, Wellesborough, Brabourne, Boreham, Foxearth, Hatfield, and Leigh. They are mostly of simple character, but fitting and appropriate, and range in cost from 120*l.* to 1,000*l.* and more. The principal schools illustrated are those at Leigh, in Essex, erected by the private munificence of the Bishop of Moray and Ross, but of these there are no descriptive particulars given. We take the following advice from the introductory preface:—

"In woodwork, the gift of green timber should be avoided: rather let it be sold, and invested in sound Memel timber. If well-seasoned oak can be obtained, it is preferable to deal, but not where it is cut in the same spring, or less than three or five years old; but one year of English winter felled oak, before the spring sap rises, is worth years of spring-cut oak, in which every fibre rises from the emptying of the sap arteries, and is so weakened in the grain as to twist, crack, and warp more than almost any other of our native timber. Let all timbers be large enough to be mortised, and not halved, or nailed side by side, depending on their own cohesion. Floors require ventilation under, but not through, opposite walls: if possible, the openings should be on one side to the external atmosphere, and on the other inside the building. The floor-boards should be grooved, and tongued with oak tongues, but not with metal. A low skirting should always run round all the rooms.

For the sake of ventilation—it need not be said for appearance—as well as sound, all roofs should be of a high pitch and open. Boarding is better than plastering under the tiles or slates; but great care must be used, if boarding cannot be afforded, in not plastering to the tile-lathes or battens. For the covering of roofs, much must depend on the locality. If tiles can be had, they make the most picturesque appearance. It often happens that old tiles are difficult to procure, and new tiles are so bright as to be unpleasing; but by using a solution of manganese, into which the tiles should be dipped before placing in the kiln, this is quite obviated. Great care is necessary in securing the ridge and hip tiles; and the valley tiles require much care in laying. The joiners' work should be of the plainest description, but framed with great care: the windows should have window boards, and lined round, when these cannot be used; and where angles occur, these should be protected by wood beads, rather than plastered."

The book will be found very useful by all interested in school building.

A Dictionary of Science, Literature, and Art. Edited by W. T. BRANDE, F.R.S. L. & E. assisted by Dr. JOSEPH CAUVIN, M.A. and others. With illustrations. London: Longman, Brown, Green, and Co. 1852.

IF any who read the advice we lately gave against ignorance in matters pertaining to "natural philosophy, chemistry, and such things," should seek to be excused on the plea that they know no publication treating, *generally, and in a compendious and accessible* form, of *every* branch of human knowledge, we would point their attention to this Dictionary, of which a second edition has recently been issued by Messrs. Longman, Brown, and Green. The whole of the original work has been carefully revised, and such additions made as were rendered necessary by the progress of science, in the shape of a supplement containing all the scientific terms, processes, and improvements which have come into use since the appearance of the first edition.

The advantages of Encyclopædias are now so universally acknowledged, that it would be superfluous to endeavour to recommend the present work by dwelling on their peculiar merits; but by far the greater number of them are too voluminous and too costly for more than a limited use, embracing, as they do, an infinite variety of *treatises* (*rather than brief and comprehensive articles*), each making a considerable work. They are valuable substitutes for libraries, as repositories of the various knowledge connected with the different departments of which they treat, but they are too ponderous for ready consultation; while the extensive plan on which they are compiled necessarily renders them far too expensive for general circulation. The present work was prepared to avoid these objections, and supply a want. It has been most ably effected by Mr. Brande and those associated with him in the arduous undertaking. When we mention amongst his coadjutors Mr. Lindley, the late Mr. Loudon, the Messrs. Merivale, Mr. Galloway, Mr. M'Culloch, Dr. Cauvin, Mr. Joseph Gwilt, and Professor Owen, it will be seen that the right means have been resorted to to insure accuracy and excellence in the work.

"It must not be supposed," says the editor, "because the articles are for the most part brief and compendious, they are either flimsy or superficial. On the contrary, they have been compiled throughout with the greatest care. Popularity has not been sought for at the expense of science, nor brevity by the sacrifice of useful facts or appropriate illustration. The work contains not a few new and original views: no statement has been made as to any unusual or doubtful matter without referring to the authority whence it has been derived; and when subjects of general interest and importance are noticed, the reader is referred to the works relating to them, in which they are handled with the greatest ability."

It can hardly fail to be useful to individuals of all ranks and conditions,—to the man of business and the man of pleasure, the student and the superficial reader, the busy and the idle. Every one who takes any share in conversation, or who dips how cursorily soever into any newspaper or other publication, will every now and then find the advantage of having access to this *Dictionary of Science, Literature, and Art.*

Miscellanea.

DISCUSSION OF ART BY GERMAN ARTISTS.—The Düsseldorf artists form a very connected band, and amongst them the principle of *mutual cultivation* has taken firm root. A German paper on the subject, reprinted in the American *Literary World*, says that for a period of eight years and more, on every Sunday evening during the winter, the elder artists, including the director, Schadow, have assembled in an apartment of some public house in the city. The principal object of these meetings is artistic. They are, however, likewise devoted to literature and to the mutual enjoyment of it. Generally every fortnight or three weeks those painters who form the association are obliged each to bring a drawing, which is examined, criticised, and judged by the whole company. The artist finds himself here, far more than when he exhibits his sketch to a particular individual, immediately in the presence of a public, and, truly, one possessed of the requisite knowledge in matters of art. A general opinion is formed, which, as it gives to one a still higher degree of pleasure and enthusiasm in the prosecution of a successful composition, deters another from wasting time and pains upon a failure. On these evenings, a spirit of extreme animation and excitement generally prevails, and so much the more when the designs presented are particularly meritorious, and promise a successful progress and result. Then, too, the critical disquisitions regarding a drawing of doubtful merit, the projects suggested for the remedy of its defects, and the new discussions which arise from the consideration of these projects, occasion, at times, a spirit and interest of which the lover of art who derives his knowledge of the drawings and sketches of recent or elder painters merely from the portfolio of the collector can have no idea.

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LEAF IRON AND IRON BOOKS.—At the Renard Works in Prussia, sheet-iron so thin is manufactured, that it can be used for paper. A bookbinder of Breslau has made an album of it, the pages of which turn as flexibly as the finest fabric of linen rags. It is suggested that perhaps books may hereafter be printed for the tropics on these metallic leaves, and defy the destructive power of ants of any strength of forceps. Invent a white ink, and the thing is done. Of the finest sort the machinery rolls 7,040 square feet of leaf iron from 1 cwt. of metal.

REGISTERED INVERT BLOCK FOR THE BOTTOM OF SEWERS.

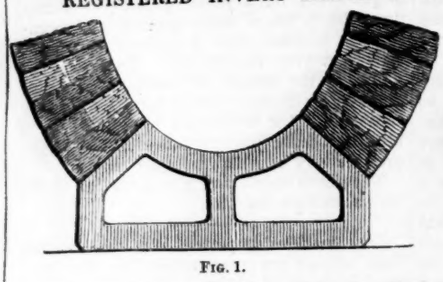

FIG. 1.

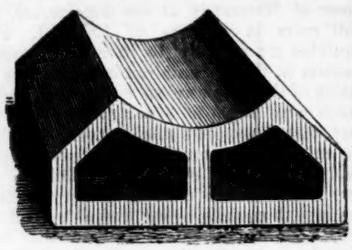

FIG. 2.

REGISTERED INVERT BLOCK FOR THE BOTTOM OF SEWERS.

MESSRS. DOULTON and Co. have recently registered an "invert block," which is intended to form a uniform and permanent surface for the bottoms of sewers and culverts, in addition to making a better foundation for the structure. The sectional elevation, fig. 1, represents the position of the block in the sewer. Fig. 2 is a view of one of the blocks. The concavity coincides with the "egg" curvature of the sewer, whilst the sides are inclined at the proper angle for receiving and supporting the superstructure. The base is level, to afford a good bearing surface, the hollow being to lighten the block, and may be used to carry away the superfluous land-water. The block is made of the ordinary stoneware, and appears to be a very useful application of it.

EPISTOLARY CHAT FROM PARIS.

THE following extracts from a letter I have just received from a friend now at Paris will, I conceive, not be unacceptable; therefore, as I shall not be guilty of any breach of confidence or other impropriety in communicating them to you for your journal, I venture to do so:—

"I have made inquiries," says my friend, "of all the publishers to find drawings and descriptions of the Church of St. Vincent de Paul, but without success. Grimm, the publisher of the *Moniteur des Architectes*, told me that Hittorff, he believed, had given some account of that edifice in his work on Polychromatic Architecture. To obtain a copy of that book was my next employment, for Grimm had it not, neither had Matthias, or any of the others in trade whom I tried. At last I went to the Bibliotheque National, where, on asking to see it, I was informed that, just a few days before, the Prince President had sent for that and several other architectural works, which had accordingly been forwarded to the Elysée. This looks as if the authorities, or rather the authority, here takes a direct interest in architecture, even to the extent of consulting books upon it, and was determined to judge for himself!"

After a good deal more, which I omit, my friend proceeds to say:—"From some conversation which I have had with ——, &c. I have every reason to believe that an *exposé* of Ruskin's doctrines would be not a little acceptable to the architectural world here; for even here he has more than one admirer among the superficial or ignorant, who are always caught by clap-trap phrases and chimerical fancies."

That, whatever others may be, the whole of the profession in France, and I should think nearly everywhere else, must be strongly opposed to views which are subversive of present practice and system, and that not in architecture alone, but in various other branches of art and manufacture also, scarcely admits of doubt. In fact, before Ruskinism could be established, a complete revolution in taste must be effected—a species of revolution not likely to happen even in France.

In another part of his letter, after speaking of some private affairs, my friend says:—"To return to matters more congenial to our tastes: I have seen the architectural drawings of this year's *Exposition* in the Palais Royal. What a contrast to the way in which they manage such things in England! The drawings are hung in a capital and well-lighted gallery,—are not at all crowded together,—nor are any of them placed much above the line of vision. Some of them are quite gems of art. In nearly all cases, too, projected buildings are fully explained by as many plans, elevations, and sections as the particular subject may require. In short, no pains seemed to be spared, but *con amore* study and diligence are shown. There are several *projets* for completing the Louvre, but I reserve my remarks upon them and several other things for conversation."

The above extract does, indeed, exhibit a contrast the reverse of flattering to ourselves. If it does not reproach us for inferiority of talent, it does for the unaccountable apathy which betrays itself here at home. Our Royal Academy embraces architecture only to smother it: it salutes it, but only with the kiss of a Judas. Yet, verily, so long as it does continue to admit architecture into its exhibitions, it ought to show itself equally attentive to it—equally watchful over its interests as over those of painting; whereas at present the former art may be said to be rather insulted than fostered by it, and to be treated with the most contumelious indignity; which could hardly happen did those R.A's who do, or are supposed to, represent architecture in the august body, perform their duty; and—but, perhaps, you will thank me for suppressing, quite contrary to my own inclination, what I do, being very doubtful whether, although I alone would be resposible for it, you would allow me to utter it in THE BUILDER. AN ARCHITECT.

LIVERPOOL ARCHITECTURAL SOCIETY.

THE report from the council just now published says,—

"There has been no dearth of communications during the session—many of great practical importance either to the science or the art of architecture. In the former may be instanced the communications from Mr. Elliott, of Blisworth, on the manufacture of vitrified bricks, and of Mr. Chantrell upon the application of fire and other clays to building and sanitary purposes. In the latter, Mr. F. Howard's contributions, and the essay upon the use of the pediment in modern architecture by Mr. Huggins, whose elegant contributions to our professional organ, THE BUILDER, have obtained extended circulation by translation into a continental language. Mr. Barry's communication upon the arrangement of union workhouses is also of considerable value, as treating of another phase of professional practice; and the council hope that it may be followed in future sessions by similar descriptions of the most desirable arrangements for schools, club-houses, counting-houses, banks, hospitals, and other buildings. Nor should reference to the several discussions in connection with St. George's Hall be omitted, since your council hope that they have resulted in a practical solution of the difficulty in the position of the organ as furnished in the plan suggested by Mr. H. P. Horner. The proper seasoning of timber is of vast importance, not only in building connected with architecture, but in many other trades also,—ship-building and cabinet-making, for example; and it may be in the recollection of the members that in the session of 1850-51 their attention was drawn to a mode of seasoning timber by its exposure to streams of hot-air, which had been patented by Messrs. Davis and Symington, and which had been introduced into Liverpool by Mr. Gregson, in his extensive saw-mills in Harrington. On the invitation of the company who now own the patent, your council undertook to conduct some experiments with the view of testing the value of this system. For this purpose they appointed a committee, consisting of the president, vice-presidents, Mr. Hay, and the secretary. This committee report that they have not been able to complete the experiments, although they hope to do so shortly; and your council, therefore, recommend that these gentlemen should be requested to continue their services until their inquiry is completed, in conjunction with Mr. H. P. Horner, who has rendered them considerable assistance. This committee wished to acknowledge the very polite attention and assistance they have received from Mr. Gregson, at whose saw-mills the experiments are being tried."

Notices of Books.

Société Centrale des Architectes, Fondée le 27 Mars, 1843. *Bulletin pour l'Année* 1851. Paris.

THE objects of the Central Society of Architects in Paris are to offer a point of union to all architects, French and foreign, pursuing either the theory or the practice of the art, to induce amongst them sentiments worthy of their profession; to examine any proposition submitted to them touching architectural practice, art, jurisprudence, &c. and to enter into communication with other bodies established for similar purposes. It consists of about 320 members, including the principal architects of the capital. Candidates to be eligible must possess a stipulated amount of knowledge, have given proofs of capacity and experience, and be in no way connected with undertakers of work (contractors), either as partner, clerk, or designer. It is their practice to refer the processes, propositions, books, &c. submitted to them to a small commission appointed out of their body; and the interesting volume before us contains several valuable reports, the result of this practice.

Mons. Gourlier was the principal secretary last year, and has been succeeded by Mons. C. Daly.

Schools and School-Houses. A Series of Views, Plans, and Details for Rural Parishes. By JOSEPH CLARKE, Architect. London: Masters, Bell, and J. H. Parker. 1852.

IN this volume Mr. Clarke has given plans, elevations, and details, of twelve schools on twenty-five plates, and two other plates showing the arrangements of schools as now directed by committee of council. We say *now* directed, because the committee appear to have thrown overboard all the designs and regulations which up to that time they had issued for guidance, and without attention to which there was very little chance of obtaining a grant. The number of bad churches, bad schools, bad workhouses, and unhealthy dwellings, which we owe to Government commissioners, the Privy Council, and Acts of Parliament, is distressingly large.

The schools given in the volume before us are at Monk's Horton, Lydd, Little Bentley, Coggershall, Coopersale, Wellesborough, Brabourne, Boreham, Foxearth, Hatfield, and Leigh. They are mostly of simple character, but fitting and appropriate, and range in cost from 120*l.* to 1,000*l.* and more. The principal schools illustrated are those at Leigh, in Essex, erected by the private munificence of the Bishop of Moray and Ross, but of these there are no descriptive particulars given. We take the following advice from the introductory preface:—

"In woodwork, the gift of green timber should be avoided: rather let it be sold, and invested in sound Memel timber. If well-seasoned oak can be obtained, it is preferable to deal, but not where it is cut in the same spring, or less than three or five years old; but one year of English winter felled oak, before the spring sap rises, is worth years of spring-cut oak, in which every fibre rises from the emptying of the sap arteries, and is so weakened in the grain as to twist, crack, and warp more than almost any other of our native timber. Let all timbers be large enough to be mortised, and not halved, or nailed side by side, depending on their own cohesion. Floors require ventilation under, but not through, opposite walls: if possible, the openings should be on one side to the external atmosphere, and on the other inside the building. The floor-boards should be grooved, and tongued with oak tongues, but not with metal. A low skirting should always run round all the rooms.

For the sake of ventilation—it need not be said for appearance—as well as sound, all roofs should be of a high pitch and open. Boarding is better than plastering under the tiles or slates; but great care must be used, if boarding cannot be afforded, in not plastering to the tile-lathes or battens. For the covering of roofs, much must depend on the locality. If tiles can be had, they make the most picturesque appearance. It often happens that old tiles are difficult to procure, and new tiles are so bright as to be unpleasing; but by using a solution of manganese, into which the tiles should be dipped before placing in the kiln, this is quite obviated. Great care is necessary in securing the ridge and hip tiles; and the valley tiles require much care in laying. The joiners' work should be of the plainest description, but framed with great care: the windows should have window boards, and lined round, when these cannot be used; and where angles occur, these should be protected by wood beads, rather than plastered."

The book will be found very useful by all interested in school building.

A Dictionary of Science, Literature, and Art. Edited by W. T. Brande, F.R.S. L. & E. assisted by Dr. Joseph Cauvin, M.A. and others. With illustrations. London: Longman, Brown, Green, and Co. 1852.

If any who read the advice we lately gave against ignorance in matters pertaining to "natural philosophy, chemistry, and such things," should seek to be excused on the plea that they know no publication treating, *generally, and in a compendious and accessible* form, of *every* branch of human knowledge, we would point their attention to this Dictionary, of which a second edition has recently been issued by Messrs. Longman, Brown, and Green. The whole of the original work has been carefully revised, and such additions made as were rendered necessary by the progress of science, in the shape of a supplement containing all the scientific terms, processes, and improvements which have come into use since the appearance of the first edition.

The advantages of Encyclopædias are now so universally acknowledged, that it would be superfluous to endeavour to recommend the present work by dwelling on their peculiar merits; but by far the greater number of them are too voluminous and too costly for more than a limited use, embracing, as they do, an infinite variety of *treatises (rather than brief and comprehensive articles)*, each making a considerable work. They are valuable substitutes for libraries, as repositories of the various knowledge connected with the different departments of which they treat, but they are too ponderous for ready consultation; while the extensive plan on which they are compiled necessarily renders them far too expensive for general circulation. The present work was prepared to avoid these objections, and supply a want. It has been most ably effected by Mr. Brande and those associated with him in the arduous undertaking. When we mention amongst his coadjutors Mr. Lindley, the late Mr. Loudon, the Messrs. Merivale, Mr. Galloway, Mr. M'Culloch, Dr. Cauvin, Mr. Joseph Gwilt, and Professor Owen, it will be seen that the right means have been resorted to to insure accuracy and excellence in the work.

"It must not be supposed," says the editor, "because the articles are for the most part brief and compendious, they are either flimsy or superficial. On the contrary, they have been compiled throughout with the greatest care. Popularity has not been sought for at the expense of science, nor brevity by the sacrifice of useful facts or appropriate illustration. The work contains not a few new and original views: no statement has been made as to any unusual or doubtful matter without referring to the authority whence it has been derived; and when subjects of general interest and importance are noticed, the reader is referred to the works relating to them, in which they are handled with the greatest ability."

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THE NEW POWDER MAGAZINES AT LIVERPOOL.—Arrangements have been made for commencing the erection of the store-keeper's, assistant-keeper's, and workmen's houses, on a plot of land at Brombrough. The land purchased comprises about two acres; and the buildings, designed by Messrs. Walter and T. S. Scott, of Liverpool and Birkenhead, architects, and, for the present, about ten in number, will cost about 2,500*l*. The powder-vessels, of which there will be three, are to be moored between Brombrough Pool and Eastham, about a mile, or rather more, from the shore, a position said to satisfy the Master-General of the Ordnance. Two of the floating magazines will cost 21,000*l*.; and they are now nearly ready for launching, one from the yard of Messrs. Clarke, and the other from that of Mr. Roydon. No iron whatever is used in their construction, all being wood and copper. Two syphons, one foot each in diameter, are to be introduced into every vessel, so that an enormous quantity of water can be poured in immediately in case of need. No fires are to be allowed on board. Lightning conductors are to be fitted up under the direction of Sir W. Snow Harris. The quantity of powder to be stored is to be increased from 10,000 to 15,000 barrels. These magazines ought surely to have been placed at a greater distance than a single mile from the shore and town of Liverpool.

THE OXFORD BATHS AND WASHHOUSES.—A serious accident, attended with fatal consequences, occurred at these baths on Monday last, the first day they were opened to the public. From the evidence adduced on the inquest (which is, however, adjourned), it appears the accident arose from the hot-water tank bursting, from the want of a sufficiency of water in it, steam being generated faster than the condensing pipe could carry it off; causing a tall brick chimney connected with the apparatus to fall with a fearful crash, killing two persons, and severely injuring four or five others. The baths have just been completed from the plans of Mr. Bull, a local architect, and engineer to the Oxford Waterworks, at a cost of 2,765*l*. towards which Mr. P. B. Duncan, Fellow of New College, munificently contributed 1,000*l*.: the site, in Castle-street, was given by the corporation.

NEW SMOKE-CONSUMING APPARATUS.—An apparatus, according to a Glasgow paper, has been originated by Mr. Aitken, of Murdoch and Aitken, Hill-street East, of that city, the advantages of which every one is at liberty to avail himself of without payment of fees for patent or "lordship." The flames from three furnaces meet in a central space or oven. The furnaces being fired in succession, at intervals of ten or twelve minutes, two of them are generally in a white flame, and on meeting the smoke from the third furnace (which is supposed to be newly kindled) in this oven between the boilers, it is immediately consumed before it can enter the flue of the larger boiler. The advantages of this apparatus, in addition to the great feature of the consumption of smoke, are described to be a considerable saving of fuel, a saving of the tear and wear of the principal boiler, and the facility with which it can be applied to boilers at present in operation, at a moderate expense, and in a very short time.

ROAD-MAKERS' ESTIMATES.—Annexed I forward you a list of tenders received for forming a road, &c. upon the "New Moston Estate," the property of the "Manchester Bridgewater Freehold Land Society," Mr. W. Wilson, Surveyor.—X. X.

Hollinhead	£2,258	0	0
Jones	1,800	0	0
King	1,700	0	0
Mollineux	1,667	15	9
Knight	1,572	16	9
Wright	1,566	0	0
Coldwell	1,560	0	0
Dunkerby	1,550	0	0
Collinge	1,455	0	0
Barber and Worthington	1,390	0	0
Higginbotham	1,348	8	0
Thorpe	1,201	0	0
Worsley	1,120	0	0
Barnes (accepted)	1,010	0	0

ELECTRO-TELEGRAPHIC PROGRESS.—A submarine line has been laid down from Holyhead to Howth, with continuation in progress to Dublin. This line appears to be the result of a sudden thought, as rapidly executed, and quite unconnected with those projects which have been making comparatively slow progress for the last six to twelve months. Messrs. Newall, of Gateshead, gave an order for eighty miles of wire to be covered with gutta-percha in a fortnight, by the Gutta-percha Company, and the thing was done. The cable, however, was then covered with galvanized iron wire at Gateshead, and sent on trucks in one continuous line to Maryport, whence it was shipped to Holyhead, and thence laid down, the whole work, it appears, being done in about three weeks. Three other Irish submarine lines, it is said, are to follow. It is to be hoped, however, that precipitancy will, as far as possible, be avoided, care and outlay in the first instance being always cheapest in the end.

COMPETITION, MANCHESTER. — Twelve designs were submitted in competition for the new Congregational Church, Bury New-road, from which the committee have selected the design of Messrs. Barry and Murray, and Mr. Raffles Brown, of Liverpool, and have awarded the second premium to Mr. Moffat Smith, of Manchester.

THE MARBLE ARCH. — It appears that 11,000*l*. were voted as applicable to the removal and rebuilding of the marble arch. The amount of estimate was 4,339*l*. 18s. 4d. The sum expended in taking down the arch was 626*l*. 16s., and with other expenses amounted to 3,584*l*. 10s. 5d., leaving 6,660*l*. 1s. 8d. out of the vote as applicable to the improvement of the area in St. James's Park, in front of Buckingham Palace.

GAS FROM WOOD.—In experiments made some time ago, it was said that a considerable quantity of illuminating gas could be obtained from two ounces of wood. The process on a large scale is now, it seems, in operation at Basel, and about to be introduced at Zurich, Stockholm, and Drontheim. It is said to be far less expensive than the manufacture from coal, and to furnish a gas free from sulphuretted hydrogen, besides several useful by-products, such as charcoal, wood tar, and vinegar.

TENDERS

For building ten fourth-rate dwelling-houses, four with shops, at Bromley, Middlesex, for Mr. P. Pritchard; Mr. Wm. Humber, surveyor. Quantities furnished.

Walker and Soper	£2,456	0	0
Reader	2,441	15	0
Hack and Son	2,300	0	0
Cooper	2,270	0	0
Wicks	2,237	0	0
Watts	2,167	0	0

For Wax Chandlers' Hall; Mr. Charles Fowler, architect.

Brass and Son	£4,279	0	0
Norris	4,247	0	0
Thos. and Wm. Piper	4,128	0	0
Wm. Cubitt and Co.	3,988	0	0
Grimsdell	3,963	0	0
Henry Lee and Sons	3,855	0	0
Little and Son	3,849	0	0
Lawrence and Sons	3,840	0	0
Holland	3,780	0	0
Jay (accepted)	3,493	0	0

For erection of eight pairs cottages, at Stratford; Mr Lambert, architect.

Keen	£4,800	0	0
Hill	4,438	0	0
Rivett	4,320	0	0
Harmer	4,288	0	0
Rudkin	4,150	0	0
Perry	3,976	0	0
Mills and Son	3,880	0	0
Thompson and Co.	3,747	0	0
Cooper	3,734	0	0
Vaughan	3,680	0	0
Searle	3,350	0	0
Heath	3,328	0	0
Hoskins	3,000	0	0

For sundry alterations to warehouses at Messrs. Nevill's, Gresham-street West; Mr. W. B. Williams, architect.

Lindsay	£1,718	0	0
Richelieu and Niblow	1,475	0	0
Norris	1,454	0	0
J. J. Coleman	1,450	0	0
Carter and Ellis	1,391	0	0

For the new St. Mark's Hospital, for fistula and other diseases, to be erected in the City-road; Mr. J. Wallen architect.

Cubitt	£8,380	0	0
Lawrence and Sons	8,142	0	0
Ashby and Sons	8,140	0	0
T. and W. Piper	7,987	0	0
Grimsdell	7,777	0	0

TO CORRESPONDENTS.

"J. M." Lancashire (there can be no possible objection to our correspondent's christening his daughter "Sorillah," if he desire to do so. So far as we are concerned we can but consider it a compliment. The young Christian who bears it will at all events stand alone), "G. R.," "G. W.," "L. V.," "W. S.," "J. J." "C. H. S." (thanks), "C. C. N." (ditto), "W. C. T." (ditto), "T. S." (ditto) "R. T." (would be ineffectual), "A. A." "E. W. E." (thanks), "A Neighbour," "S. H.," "A. B." (declined with thanks), "Dr. L.," "R. W.," "J. B." Notts. (such reports are usually too local in interest), "J. J. L." (it has been mentioned once), "T. W. G.," "Burton Crescent" (St. George's R. C. Cathedral is chiefly of Bath stone; Lincoln's-inn Hall, magnesian limestone. Caen stone is an oolite), "J. N. W.," "W. H.," "Ignoramus" (a letter to similar effect was in type before our correspondent's arrived), "Aldn. M.," "Mons. G.," "H. C.," "O. J." "J. K. W." (we shall be happy to receive the drawings: tracings will suffice), "B. B.," "Thalma," "R. B.," "W. H.," "J. J."

"Books and Addresses."—We have not time to point out books or find addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addresse to the EDITOR, and *not* to the Publisher.

ADVERTISEMENTS.

TO ARCHITECTS & WRITERS ON ARCHITECTURE.

THE PROPRIETORS of "THE BUILDER" having taken Premises well situated and adapted for conducting a Publishing Business, beg to state that they will be happy to undertake the publication of Works connected with Architecture or the Fine Arts. Being extensive Printers as well as Publishers, they can offer unusual facilities to Authors for the publication of Works of the above description.

Office of "The Builder," 1, York-street, Covent Garden.

MASONS' PROVIDENT INSTITUTION.—W. TITE, Esq. F.R.S. President.

A PUBLIC DINNER, in aid of the funds of the above Institution, will be held on THURSDAY, JUNE 17th, at the FREEMASONS' TAVERN, Great Queen-street, Lincoln's-inn-fields. The Right Hon. LORD ROBERT GROSVENOR in the Chair.

HONORARY STEWARDS.

Thos. Bramey, esq.	Chas. Lushington, esq. M.P.
Joseph Browne, esq.	P. Mac Dowell, esq. R.A.
James Chadwick, esq.	George Myers, esq.
W. Cubitt, esq. M.P. Alderman	Sir John William Shelley, bart.
Sir J. Duke, bart. M.P. Alderman	Sidney Smirke, esq.
Gen. Sir De Lacy Evans, M.P.	C. H. Smith, esq.
J. A. Fabricotti, esq.	Thos. Wakley, esq. M.P.
John Foot, esq.	Richd. Westmacott, esq. R.A.
W. Freeman, esq. Treasurer	P.R.S.
Geo. Godwin, esq. F.R.S.	

ACTING STEWARDS.

John Carlile	Wm. Easterbrook	Wm. Leach
John Croker	W. J. Gilbert	G. Sanson
William Dix	Wm. Hannam	G. E. Thompson.

Dinner on Table at Six o'clock. Tickets, 21s. and 5s. each. Ladies' Tickets to the Gallery, including refreshments, 2s. each, which may be obtained of the Stewards and Committee; of the Secretary, at his residence; and at the Bar of the Freemasons' Tavern. JOSEPH T. WHITEHEAD, Secretary.

1, Johnson-street, Holywell-street, Westminster.

THE OPERATIVE MASONS' BENEFIT SOCIETY, held at "The George," Great Chapel-street, Soho. Instituted, 1810; Enrolled, 10 Geo. 4, c. 56.—The FORTY-SECOND ANNIVERSARY of the above Society will be celebrated on MONDAY, July 19th, at the Highbury Barn Tavern.

THOMAS JACKSON, Esq. in the Chair.

HONORARY SUBSCRIBERS.

Messrs. G. Baker and Son	Mr. C. Todd
Messrs. W. Cubitt and Co.	Mr. J. Rogerson
Messrs. T. and W. Piper	Mr. E. Farrow
Messrs. W. and J. Freeman	Mr. Bevers
Messrs. Smith and Appleford	Mr. Booth
Mr. T. Grissell, esq.	Mr. Robson
Mr. T. Jackson	Mr. Tuckwell
Mr. W. Clark	Mr. Fluester
Mr. J. Foot	Mr. Lander
Mr. P. Nowel	Mr. Rutherford.

STEWARDS.

Joseph John Smith	Robert Hazell
Joseph Kay	George Beadsworth

John Tarran.

Tickets to be obtained of Mr. JOSEPH JOHN SMITH, Sec. Steward, 27, Sloane-street, Knightsbridge.

WM. F. TARRAN, Secretary.

TO ZINC MANUFACTURERS, &c.—Any party desirous of JOINING in CARRYING OUT an INVENTION (by a professional man) in the above branch, chiefly in connection with the building trade, which will be certain to come into general use, and realize a good profit, may have further particulars on application, by letter in the first instance, with real name and address, to "Zinc," Office of "The Builder," York-street, Covent-garden.

HOUSE DECORATOR, &c.—WANTED, a respectable Youth as an APPRENTICE to the above.—Apply, by letter only, to J. WILLSON, House Decorator, High-street, Kingsland.

APPRENTICE, Out-door, in LITHOGRAPHY. A premium required. Specimens of ability in mapping, mechanical drawing, or writing, to be sent to JOHN LANE, 135, Chancery-lane.—An Apprentice also Wanted to the Printing.

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WANTED, in the Office of an Architect and Surveyor, in the City, an ARTICLED PUPIL, for a term of three or five years. A moderate premium required.—Apply by letter to A. B. care of Messrs. Williams and Son, 25, Walbrook, City.

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TO BUILDERS' CLERKS.

A CLERK is WANTED by a BUILDER in considerable practice in Birmingham. None need apply who are unaccustomed to the duties of a builder's office, viz. measuring work, abstracting accounts, taking out quantities, &c. —Applications, stating last employer and salary expected, to be addressed, Z. *Herald* Office, Birmingham.

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WANTED, in the Country, about 24 miles from London, a PERSON in the above capacity.—Address, to F. M. Post-office, Dorking, stating age and terms. P.S.—A Draughtsman would be preferred.

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WANTED, by an Architect, who has a large and increasing practice in one of the principal Midland County towns, a GENTLEMAN, qualified in every respect to undertake the MANAGEMENT of his OFFICE. The engagement to be a permanency should it prove satisfactory.—Address, stating all particulars, to X. Y. Z. Post-office, Gloucester.

WANTED, a CLERK of the WORKS immediately, to superintend the ERECTION of some WAREHOUSES in the City. It is necessary that any party applying should have previously held a similar situation, and be able to make out working drawings.—Reply by letters only, with copies of testimonials, to H. F. 137, Regent-street.

TO BUILDERS' FOREMEN.

WANTED, an active experienced SHOP FOREMAN, Thirty Miles in the Country, where about Twenty Men are regularly employed. Also, for about Four Months, an active Man to take the Management of a Building about Twenty Miles from Town. Testimonials as to character and ability will be required.—Address, post-paid, to Mr. BAXENDELL, 12, Grosvenor-street, Camberwell-road.

TO ENGINEERS AND BOOKKEEPERS.

WANTED, an ENGINEER or MEASURER, well versed in laying out and measuring up railway works Also, a CASHIER or BOOKKEEPER, who is efficient in keeping contractors' accounts. No parties need apply who have not been for three years at least in the employ of some respectable contractor. Applicants to state their age and the salary last obtained. Copies only of testimonials should be sent, and the undersigned will not engage to reply to all or any application.—Address W. X. D. *Cardiff Guardian* Office, Cardiff.—June 2, 1852.

WANTED, by a Young Man, aged 22, a Situation as JUNIOR CLERK in an Architect and Surveyor's Office.—Address W. 7, Dalston-terrace East, Dalston.

TO BUILDERS AND CARPENTERS.

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WANTED, by a Young Man, thoroughly conversant with the routine of an Architect's or Engineer's Office, a SITUATION as ASSISTANT or DRAUGHTSMAN. The advertiser has a thorough knowledge of the detail of Gothic and Italian architecture, the principles of perspective, &c. &c. A moderate salary would be accepted.—Address A. B. care of W. G. Hipkins, esq. 45, John-street, Holland-street, Blackfriars-road, London.

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THE attention of Architects, Builders, &c. is requested to the following important letter

From the Rev. DANIEL C. DELAFOSSE,

SHERE RECTORY, NEAR GUILDFORD.

"May 11th, 1852.

"GENTLEMEN,—In reply to your communication relative to the Gutta Percha Tubing laid down in one of my wells, I have to state that as yet it has fully answered the purpose to which it was applied, and has proved far more durable than the leaden pipes which were hitherto used.

"The fact is, my spring water is strongly impregnated with iron, which *corrodes the lead*, and causes holes in the pipes, so that the air getting in, prevents the pumps from acting properly. The only inconvenience that I experienced from the use of the Gutta Percha Tubing was, that it gave, for a week or so, an unpleasant taste to the water; but after this brief space had elapsed, the water passing through the tubes was as clear and tasteless as that which had hitherto been raised through the leaden pipes. A year, I think, has nearly elapsed since I tried your pipes for the first time, and as no damage has hitherto occurred to the one now in use during that period, I have reason to hope that the evil of the leaden pipes will be permanently cured; or at least that it will take a far longer time to injure the Gutta Percha Tubing than I have found to be the case as regards the lead.

"Yours, &c. "D. C. DELAFOSSE.

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PORTLAND CEMENT.—JAMES WESTON, having commenced manufacturing the above Cement, begs to inform the trade in general that he can supply them with any quantity they may require, either at his Works, Mill-wall, Poplar; St. Andrew's Wharf, Earl-street, Blackfriars; or Middle Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, French and English Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. solicit the attention of their friends and the public to their superior Cement, confident that the great improvement in the manufacture thereof during the present year will insure to them a continuance of that patronage with which they have so long been favoured.—Orders received at the Works, and at Great Scotland-yard, Whitehall.
March, 1852.

6, South Wharf, Paddington.
PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the trade the above superior CEMENT, being of uniform colour and quality (a desideratum never before attained in Portland Cements). It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which its eminent hydraulic properties stamp it at once as the first cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

MEDINA (ROMAN) CEMENT.—The material of which this cement is made is obtained in the Isle of Wight. It has all the properties of the Sheppy Stone, but is much better adapted to engineering works, from the rapidity with which it sets and hardens under water. It has been long used at the great Breakwater at Cherbourg; in a similar work at Alderney; and at Dover New Pier, to unite the masonry. The foundation of the centre pier of the Tubular Bridge at Menai Straits is laid in Medina Cement. A new groyne at Sandown Bay, Isle of Wight, has been constructed of no other material but this cement and sea shingle. The work extends 200 feet into the sea, and is exposed to the most violent gales of the Channel, in a position where every former construction had been repeatedly washed away. The inconvenience of the varied qualities of Roman Cement are superseded by the use of this improved manufacture.
CHAS. FRANCIS and SONS, Nine Elms, London; or West Medina Mill, Newport, Isle of Wight.
Agent for Southampton, R. L. FLUDER, American Wharf.

PERMANENT STUCCO WASH, WITHOUT SIZE OR OTHER CORRUPTIBLE INGREDIENT.
As used at St. George's Hospital, Hyde Park Corner.
JOHNS and CO. having effected some important improvements in the manufacture of this very useful material, confidently offer it to the notice of the Trade and the Public generally, as possessing every advantage over the common Lime Wash or Water Colour for STUCCO or BRICK WORK. It is a Stone Colour, but may be tinted to any other—DOES NOT WASH OFF—is perfectly dry in twenty-four hours, and, being a non-absorbent, is admirably adapted for Railway Stations, Union Workhouses, Barracks, Schools, Prisons, &c. One cwt. will cover 250 square yards. It will keep good for years, and MAY BE EXPORTED WITH PERFECT SAFETY.
JOHNS and CO.'S STUCCO CEMENT.—This cement, from the great reduction in price, and its suitableness for internal as well as external surfaces, places it above all other materials of its kind; it has no caustic qualities; may be painted or papered in a few days; never blisters, cracks, or vegetates; soon becomes as hard as stone; and may be cleaned with a brush and water.
The merits of the PAINT are well known for its application to stucco work of all kinds, and external work generally. Numerous testimonials, prospectuses, and every information may be obtained, on application to the Sole Agents, PHILIP HARE and Co. at the Warehouse, 22, Steel-yard, Upper Thames-street. A liberal allowance to wholesale dealers.

TO BUILDERS, MASONS, AND OTHERS.
BUILDERS, MASONS, and others are informed they can now be supplied with YORK BLOCK, SAWN STEPS, SLABS, &c. at unprecedented prices, from the Caen Wharf, Rotherhithe.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN and STONE-MERCHANTS, BATH.
(DEPOTS.)

Great Western Railway Station....	PADDINGTON.
Great Western Railway Station....	BRISTOL.
Hope-street, Mount-pleasant	LIVERPOOL.
Castle-fields	MANCHESTER.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application.

MARKET WHARF, REGENT'S-PARK BASIN.—MARTIN and WOOD solicit the attention of Builders, Masons, and others, to their stock of Portland, York, and Derby Stone; also Bangor Slates. Lime, Cement, Plaster, Bricks, Tiles, Laths, Fire-goods, Fire-stone, &c. sold at the lowest possible prices for Cash. Portland Head-stones, Ledgers, Steps, Landings, &c. cut to order on the shortest notice. Tarpaulings let on hire. A Stock of Northen's Drain Pipes, Syphons, &c. always on hand. Mortar, Lime, and Hair, Fine Stuff, &c. Prompt attention paid to country orders.

CORSHAM-DOWN, and other BATH and PAINSWICK STONE.—MARTIN and WOOD beg to inform their Friends and the Building Trade generally, that all Orders and Inquiries for the above Stone will be promptly attended to by being addressed to MARKET-WHARF, REGENT'S-PARK-BASIN.

TO CONTRACTORS, BUILDERS, AND OTHERS.
TO BE DISPOSED OF CHEAP, about 1,000 tons of New Bramley Fall and other STONE, in random sizes; also a few thousand feet of coping, 1 ft. 6 in. by 6 in. The above (or any portion of it) can be shipped in cargoes and delivered in the river, or any port eastwise with immediate despatch.—For price and further particulars apply, by letter or otherwise, to Mr. MORTIMER, 26, Saint Thomas's street, Borough, London.

BOX WEATHER STONE, of best quality, SCALLETT BLOCK, &c. &c. supplied direct from the Quarries by ROBERT STRONG, Quarry Proprietor and Stone Merchant, Box, Wilts. The great durability of the Box Ground Stone, withstanding the most intense frost, renders it a desirable stone for all external building purposes. Orders to any extent immediately attended to. Depôt, Box Station, Great Western Railway, where an extensive stock is always kept. Every description of Stone Work, both plain and ornamental, prepared ready for fixing. Ashlar, Rancework, Walling Stones, always on sale.
VASES IN ELEGANT VARIETY, URNS, FOUNTAINS, CHIMNEY PIECES, &c. &c. always on sale.

TO BUILDERS, MASONS, &c.
W. ASPINALL, Stone Merchant, Mason, and Pavior, North Western Wharf, Hampstead-road bridge, Camden Town, begs most respectfully to call the attention of builders, masons, &c. to his LIST of PRICES for STONE, delivered two miles, in quantities not less than one ton, as follows, viz.:—Portland Block (West Cliff), 2s. 3d. per cubic foot; Hare Hill, 1s. 11d. ditto; Caen ditto, 1s. 5d. ditto; Inch Hare Hill Slab, 37s. 6d. per 100 feet; Robin Hood, 40s. ditto; Self-faced York, 30s. ditto; York Sinks, 1s. 10d. per foot; Tooled York Steps, 12 by 6, 1s. 5d. per foot; 12 in. or 13 in. by 2 in. Quarry-worked Coping, 8½d. per foot; 12 or 13 by 3 in. paralleled, or 3 by 2½ Quarry-worked ditto, 10½ per foot. Park Spring, Robin Hood, and Hare Hill Landings and Slabs; Tooled and Self-faced York Landings to all dimensions; Tooled and Self faced York Paving any thickness; Portland and other Ledgers, Landings, Steps, Sills, and Head Stones cut to order on the shortest notice, and at prices that defy competition.—A full list of which will be forwarded post-free on application.—N.B. The above wharf being situated not more than 100 yards from the North-Western Goods Station at Camden Town, W. A. is enabled to offer to builders, masons, &c. situated along the above line of railway advantages not before attainable.

GOOD TOOLED PAVING, 32s.; ditto thicker, 40s.; very superior, 42s. to 45s. E. and W. STURGE, Bridge-wharf, City-road. Builders, and others, are informed that the prices of Paving, Sinks, Steps, Coping, &c., have been recently much reduced; also, Drain Pipes in Clay or Stone. A trial solicited.—N.B.—Cash prices on the wharf.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.—Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.—N.B. Country Agents and Railway Engineers and Contractors supplied with the best bitumen for covering bridges and arches.

TERRA COTTA and SCAGLIOLA manufactured by J. M. BLASHFIELD, Mill Wall, Isle of Dogs, and sold at No. 1 Wharf, Praed-street, Paddington.
Vases, tazzas, friezes, capitals, coats of arms, chimney shafts, trusses, flower pots, and all ornamental work required to stand heat and frost without cracking or changing colour, may be had at nearly the same cost as casting in cement.
Terra Cotta is more durable than iron, granite, marble, or stone, and may be made of black, red, and light cream colours of every shade. It can be more quickly cut and delicately wrought than either stone or marble, and architects can have their own designs modelled and fired in this material (without moulding and the chance of copying) fresh from the hands of the artist.

PRIZE MEDAL for TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, being awarded for quality of Material and Workmanship.
M. H. B. begs to solicit the attention of the Nobility, Gentry, Architects, Builders, &c., to this invaluable and imperishable material that has been and is now adopted by our eminent Architects and others in the adornment of our noblest buildings, its being applicable to groups, statues, friezes, capitals, panelling, finials, terminals, Tudor and other chimney-shafts, balustrading, fountains, fonts, tazzes, vases, coats of arms, devices, ornamental ridging, and every description of Architectural embellishment, at prices defying competition.
Works, King Edward-street, Westminster-road, London.

ELIZABETHAN CHIMNEY-POTS.—More than 100 patterns of the above-mentioned articles are manufactured in artificial stone by J. SEELEY, at Austin and Seeley's Artificial Stone Works, 1 to 4, Keppel-row, New-road.

STIRLING'S BELVEDERE SLATE WORKS, Belvedere-road, Lambeth.—A reduced list of prices of the best WELSH SLATE SLABS, planed both faces, will be sent on application (post paid) being made, and inclosing a postage stamp. The prices are under those advertised for inferior slates.

THE PIMLICO SLATE WORKS, Patronised by Royalty, the Heads of the Nobility, the Clergy, Architects of Eminence, Builders, Railway Contractors, and the Public generally.—MAGNUS'S ENAMELLED SLATE (notwithstanding the vile imitations and infringements of his patent that are attempted), continues to grow in favour with the public, being handsomer, more durable, and very much cheaper than marble.—Price lists and a sheet of drawings, sent to any part of the kingdom gratis. Cisterns, Filters, Dairy and Larder Shelves, Wine Cellar Fittings, Slabs, and every variety of plain Slate-Work, at prices that defy competition.—49 and 50, Upper Belgrave-place.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various lunatic asylums, the Ordnance Works, Model Prison, Pentonville, and other penitentiaries, Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities at Freeman's Wharf, Millbank-street; also by Messrs. SHARPE, Tooley-street; and Messrs. BRABY'S, Belvedere-road, where terms may be obtained.

SLATE SLABS for SALE.—About 55 tons of HEMBLAS FLAG, worthy the consideration of Builders and others; they are of convenient dimensions, and the usual various thicknesses. To be seen on board the barge "Rose," City-road Basin, Regent's Canal.—For particulars apply to Messrs. THOMAS and SON, 3, Fen-court, Fenchurch-street.

TO SCULPTORS, MASONS, BUILDERS, AND OTHERS.
MARBLE.—JOHN BAZLEY WHITE and SONS respectfully invite the attention of the Trade to a large parcel of first-class MARBLE, just landed at their Wharf, 17, Millbank-street, Westminster, consisting of

20	Blocks of Vein	
17	"	Sicilian
32	"	Statuary.

And also solicit the favour of an inspection of their Stock generally in Block and Slab.
J. B. WHITE and SONS have 97 Blocks of Statuary, Vein, Sicilian, and Coloured Marble now arrived in the Docks, per "Maid of the Mill," "Eagle's Wing," and "Castor," which will be alongside in a few days.
100 Blocks of Italian Alabaster on Sale.

TO BUILDERS, MASONS, AND CONTRACTORS.
OBSERVE!!! the Cheapest Depôt in England for MARBLE CHIMNEY-PIECES of superior quality and workmanship is the Westminster Marble Company's Patent Works, Earl-street, Holywell-street, Millbank. An inspection of their superior stock of statuary, Sienna, black and gold, vein, and other chimney-pieces, tombs, monuments, tablets, &c. is earnestly solicited.

MARBLE.—Mr. J. FABBRICOTTI, Proprietor of Marble Quarries at Carrara, Italy, begs to inform the Gentlemen connected with the Marble Trade, that he has established in London the most extensive Depôt in the United Kingdom of STATUARY, Veined, Sicilian, Dove, and Black and Gold MARBLES, the produce of his own Quarries.
CARRARA-WHARF, Thames-bank, Pimlico, at the foot of Vauxhall-bridge. Office, 8, Crescent-terrace, Millbank.
Mr. THOS. THOMPSON, Agent.

Medieval Works, Memorials, Fonts, Screens, etc.
AT A VERY ECONOMICAL RATE.
SAMUEL CUNDY, Mason and Builder, PIMLICO MARBLE and STONE WORKS, Belgrave Wharf, Lower Belgrave-place, Pimlico.
MARBLE CHIMNEY-PIECES manufactured by improved machinery. The public are invited to view the stock, unequalled for quality and price.
A GOOD MARBLE CHIMNEY-PIECE FOR FORTY SHILLINGS.
A liberal discount to the Trade.
MARBLE WORK in all its branches, at a remarkably cheap rate, for HALLS, DAIRIES, LARDERS, &c. &c.
Circulars sent on application.
N.B. The "Royal Blue" Omnibuses pass the Works every ten minutes from the Bank.

TO ARCHITECTS, SCULPTORS, BUILDERS, STONE and MARBLE MASONS, &c. &c.—ALABASTER QUARRIES, CHELLASTON, near DERBY.—Alabaster in blocks of almost any size, and of very superior quality, may now be obtained from these quarries on application to
Messrs. JOSEPH SMITH and SONS,
HORNINGLOW, near BURTON-ON-TRENT.
This stone was extensively used during the Middle Ages for Monuments and other Ecclesiastical Decorations, and since that period until now has not been obtained in blocks of any size. Its colour is white, and beautifully variegated. It is easily worked, and capable of taking a high polish, which renders it suitable for every kind of internal House Decoration.
Agent in London, Mr. WILLIAM FIELD, 38, Holywell-street, Millbank; Depôt, 24, Wharf, Paddington, where a stock is always on hand.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1838. Every description of Flooring laid with the above durable material in the best manner. Acknowledged by eminent engineers and architects to be superior to the article called "Claridge's," and at half the price.—Importer of Trinidad Asphalte.

TO BUILDERS AND OTHERS.
SEVERAL THOUSAND BRICKS to be SOLD, by Private Contract.—For further particulars apply to F. W. care of F. Byass, esq. Town-hall, Brentford.

ARCHITECTS and BUILDERS are respectfully invited to try JOHN ROBERTS'S HOLLOW BRICKS, made of suitable size and shape to work with ordinary bricks; they are capable of bearing a pressure of six tons each, having been tried by an eminent Builder in London; they can be delivered in London at prices below good stock bricks, and possess many advantages, too numerous to state in an advertisement.—Apply to JOHN ROBERTS, Upnor Tile Works, near Rochester, Kent.

BRICKS.—H. DODD is enabled to offer his BRICKS, which are of good quality, at the following low prices; and as his fields are only a quarter of an hour's walk from the City, H. D. earnestly requests purchasers will favour him with a visit, in order to inspect his stock and to judge for themselves:—

Marle cutters	84s. Per Thousand.
Yellow seconds	60s. "
Pale seconds	50s. "
Paviors	45s. "
Pickings	38s. "

Delivered within two miles of the fields.
Marle place, half-washed stocks, and place bricks, at equally low prices. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.—Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange walk, near the Rosemary Branch, Hoxton. N.B.—Red pit sand of approved quality constantly on sale, upon reasonable terms; this sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.